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ORIGINAL ARTICLES.

CATARRHAL FEVER IN CHILDREN.

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CASE I.—On March 26th I was hurriedly called to attend R. M., a child about two years of age, who had been taken sick suddenly, although, as the mother afterward informed me, during the afternoon and evening of the previous day it had not been quite well.

As I found the temperature in the rectum above 105°, some drowsiness, and twitching of the muscles, I cautioned the parents as to the possibility of the child's having a convulsion. I prescribed two grains of antifebrin, six grains of potassium bromide, and a tepid bath. Hardly had I left the house before the child had general spasms, which, from all accounts, must have lasted from eight to ten minutes. On my return in a couple of hours the temperature was 106°, partly, no doubt, as a result of the convulsion, and, after putting the child for fifteen minutes in a bath of 96°, rapidly cooled to 95°, the temperature came down to 104°. In less than an hour it had gone up again to 105.4°. During the first two weeks of its illness it received altogether about forty of these tepid baths.

Large doses of quinine and the prolonged baths only reduced the fever for short periods. The child continued in a semi-comatose state for nearly four days, only improving in this respect after its bowels had been thoroughly moved by repeated small doses of calomel. When the cerebral symptoms had disappeared, great irritability came on, manifesting itself by violent attacks of crying and screaming, which persisted for hours at a time. Hyperesthesia, both general and local, was present to such a degree that it was often impossible to feel the child's pulse or take its temperature in the rectum. When the child was to all appearances asleep, the slightest noise or touch would startle and be likely throw it in one of these spells.

Cough, dry and hacking, was present from the first day. There were a few râles, but no dyspnea or changes in the character of the respiration. On the 15th of April, the twentieth day of the fever, some harshness of breathing could be detected over the posterior edges of the left lung. Small moist râles now made their appearance, with a looser cough and a more intermittent range in the temperature. These symptoms, however, came on gradually. After a few days the right lung became correspondingly involved, whilst the left one commenced to clear up. This condition of the lungs was much like that observed in the pneumonias of the aged during the recent epidemic of influenza, only the posterior and lower edges becoming involved, and not whole lobes or circumscribed areas of the organ. The reflexes appeared greatly exaggerated during the latter part of the attack, and a peculiar tremor of the arms and hands was apparent on the slightest exertion. Pronounced ankle-clonus was also present. The child would lie on its back for hours at a time, perfectly quiet, with a peculiar fixed gaze on some object in the room, or else picking at its nose and lips.

It became profoundly emaciated and anemic. Loud systolic murmurs could be distinctly heard over the whole chest. The pulse was weak, and at times irregular in volume, and ranged from 140 to 160. There were no abdominal symptoms or enlarged spleen. There was complete anorexia. The vomiting, which occurred several times, came on only after a few large doses of quinine.

CASE II is that of a child about twenty-three months old. On March 24th, appearing rather indisposed and feverish, its temperature was taken and found to be 103.8°. In the evening it had risen to 104.6°. The parents informed me that during the preceding few days the child had refused its bottle several times, had vomited once or twice, had some cough, and a little discharge of mucus from its nose. These symptoms were ascribed to a slight cold. On the 25th the child appeared much brighter, the temperature not rising above 100° during the whole day. On the 28th, at about 3 A.M., the temperature rose again to 104.8°, declining by evening to 100.2°. On the 26th there was another sudden rise, but after this the fever became distinctly remittent in character.

Cough, the only other symptom present, appeared to increase or decrease in severity with the rise and fall of the temperature. I was in this case unable to make a diagnosis of catarrhal fever before the lapse of several days, bearing in mind at first the possibility of the child's having typhoid fever, the father of the child having just recovered from a prolonged attack of this disease. On April 13th the child was taken to Atlantic City, and on the 16th, after vomiting for several hours, it developed a typical attack of scarlet fever, with the characteristic rash, sore throat, and strawberry tongue. The symptoms previously had been: fever of several weeks' duration, cough, loss of appetite, constipation, irritability.

CASE III.—On March 26th I was called to see I. M., a child twenty-two months old. Its parents had but recently returned from Camden. Mrs. M., the mother, was in the seventh month of pregnancy, and had suffered from diarrhea from the first weeks of gestation, despite assiduous treatment. On March 10th the husband, a man of about thirty, healthy and strong, and by occupation a weaver, was taken sick with a slight attack of influenza, from

which he made good recovery in a few days. On the 13th Mrs. M. took to bed, suffering, she supposed, from a bad cold. She complained of frequent and distressing cough, and became quite feverish. She could retain nothing in her stomach, vomiting all food, both liquids and solids. The diarrhea became worse. On March 16th labor set in, and in a short time she gave birth to a rather small and puny child, which lived but a few hours. She appeared to improve for a couple of days, but soon the vomiting returned, the looseness of the bowels persisted, and she died after a time from exhaustion.

Post-mortem examination confirmed the diagnosis of chronic intestinal ulceration. Both the ileum and the colon were found studded with the deep, punched-out, sloughing ulcers, common in cases of dysentery.

When called to attend this child the symptoms were so much like those present in Cases I and II that I suspected we had to deal with another case of catarrhal continued fever. The fever persisted for over six weeks. Delirium was much more prominent than in the other cases, especially at night. It became necessary to pad the sides of the crib with pillows, in order to prevent the child from injuring itself. Notwithstanding these precautions it received several blows and bruises on the head and face.

The child eventually made a good recovery, although it had some little fever for several weeks. During the whole course of the fever a distressing cough was present, with evidences of slight bronchitis, but the lungs remained clear, so far as could be detected by careful physical examination.

On April 9th, about a month after his first attack of influenza, the father of the child again took to bed with fever and cough. The temperature ranged between 103° and 103.2° for nearly two weeks, slowly returning to normal on or about the sixteenth day. There were no abdominal symptoms, but rather decided constipation. This man remained in bed for about ten days. A diagnosis of catarrhal remittent fever was made.

I also attended a young man, about twenty-four years of age, living a few doors beyond, with much the same symptoms, the fever, however, lasting only fourteen days.

The grandmother of the child whose history I have just given, a woman over sixty-five years of age, had chronic nephritis, with valvular heart-trouble. On March 28th she was obliged to go to bed, feeling, as she said, out of sorts, with slight fever and cough. On the following morning she died rather suddenly, complaining a few minutes before her death of a sense of oppression over the chest and great dyspnea. In this family we had four cases of catarrhal fever, with two deaths.

In order to properly recognize catarrhal continued fever as a distinct disease, we must first take up the fevers that are so very common in children. In attempting their classification we encounter many difficulties, and although they seldom terminate fatally, their careful study and early recognition is a matter of great practical importance. Especially are we impressed with this fact when compelled, during the prevalence of some contagious epidemic disease, such as typhoid or scarlet fever, to make an early and correct differential diagnosis.

The text-books state that the majority of infectious diseases run a mild and irregular course in children, and this is more marked in respect to the fevers, which closely resemble each other during the first few days of their commencement.

All practitioners have seen cases in which it has been practically impossible to make a positive diagnosis before the lapse of several days.

Take, as an example, the difficulties in differentiating between a simple or abortive type of typhoid and one of the numerous symptomatic fevers so common in children, or between a mild case of scarlet fever and an acute attack of tonsillitis, accompanied by high temperature, exudation on the tonsils, vomiting and a general erythematous rash, not an unusual clinical picture in children during the last winter.

It is taught that under the circumstances a delay of two or three days will clear up the diagnosis; but, in the meanwhile, how can we conscientiously insist on the necessary isolation, involving as it does among the poorer classes much inconvenience and expense; or evade the numerous questions so persistently put by the anxious parent or more inquisitive neighbors.

The necessary delay involved in determining the question of contagiousness in a given case is frequently unavoidable, but this remains one of the embarrassing and trying questions in practice.

How often are we obliged to wait for days, anxious and perplexed, before we can make the final differential diagnosis between rubeola and scarlatina. Such has been my experience at least with those cases of German measles that are marked by initial high temperature, vomiting, sore-throat, followed by desquamation and peeling on the extremities.

As evidence that this matter is by no means exaggerated, or that this question is not always easily and satisfactorily dealt with, we point to the surprising number of cases of scarlet fever and diphtheria cured and running about in less than a week, notwithstanding the gravity and large mortality accompanying these diseases in children. Such cases indicate either exceptional ability to cure necessarily grave diseases, or a disinclination to change a previously made incorrect diagnosis.

The majority of the febrile attacks of children may be included under the terms ephemeral fever and febricula—the former when the febrile paroxysm lasts less than thirty-six hours, and the latter when it persists for five, six, or more days. That we have

an abundance of terms, as well as theories, in relation to this subject still in use in our modern text-books, cannot be denied; but it may be explained by the fact that the proper classification of the fevers of childhood is a question by no means settled in the minds of the profession, many of the terms used in connection with these fevers conveying little or no information—as, for instance, catarrhal and infantile remittent fever; the latter, in fact, having been applied to a variety of different conditions, such as gastritis, enteritis, hepatitis, and even one or two of the essential fevers.

Ephemeral fever, febricula, simple continued fever, irritative, gastric, catarrhal, septic, and infantile remittent fever, also herpetic fever and febris rheumatica of the Germans, synochus or mixed fevers, synocha or inflammatory fever, and functional fever, are some of the terms used by the older writers. Insolation, thermic or heat fever, continued thermic, and the ardent continued fevers of the tropics, are used more in connection with the febrile condition produced by excessive heat.

Classification.		Causes.	Duration.
Symptomatic fevers.	(A) Ephemeral or irritative fever.	Cold, or any source of irritation of an important organ of the body, such as teething, worms in the alimentary tract, serious injuries or fractures; sudden excitement or exhaustion of nerve-centers, as in attacks of hysteria, or extreme mental and bodily fatigue; the passage of bougies through the urethra; the inhalation of poisonous gases.	From 24 to 36 hours.
	(B) Febricula or simple continued fever.	Gastro-intestinal inflammations, indigestion and secondary absorption of leukomaïnes from the alimentary canal; as, for example, the fever produced by the absorption of tyrotoxicon or the ptomaïne found in ice-cream; attacks of biliousness, simple adenitis or lymphadenitis; inflammations of the mesenteric glands or tonsils; muscular rheumatism, and not improbably acute exacerbations in cases of chronic endocarditis.	From 3 to 12 days.
	(C) Thermic fever.	Exposure to intense heat or the direct rays of the sun, and over-exertion in hot weather.	From 3 to 6 days.
Essential fevers.	(A) Malarial remittent fever.	Malarial poison	From 6 to 12 days.
	(B) Catarrhal continued fever.	Influenza poison	Indefinite; at least several weeks.
	(C) Specific fevers.	Abortive types of infectious diseases as observed during epidemics of typhus, typhoid, relapsing fever, measles, variola, and erysipelas; but only likely to occur during or immediately following epidemics.	From 6 to 14 days.

This variety naturally leads to much confusion, and to simplify matters they should first be divided into the two great classes, the symptomatic and essential fevers, rather than to include them all, as is commonly done, under the one head of febricula, the definition of which, according to a recent text-book, is "a fever of short duration depending on a variety of causes." (Osler.)

When called to prescribe for such conditions in children, our first object should be to attempt their classification under one of two heads—that is to say, to satisfy ourselves as to whether we have to deal with a symptomatic fever, caused by some local inflammatory condition, or an essential one, in which the local lesions are secondary to the fever.

I am well aware that it is frequently a most difficult point to determine, if the fever be idiopathic or symptomatic, and the local conditions a cause or effect. Our common excuse for failure in this respect is due to the fact that we are usually called rather late to the case, or only after the secondary local lesions have made their appearance. This difficulty is always greater in children because in them the secondary lesions caused by fever are likely to make their appearance sooner and become more prominent than in adults, no doubt as a result of the greater impressionability, as well as the undeveloped state of the nervous system.

We may still arrive at a correct diagnosis if, notwithstanding the presence of these secondary lesions, we find that the inflammatory conditions are insufficient to account for the degree of pyrexia or the general symptoms in the case.

On the other hand, we should never overlook the possibility of an essential fever in the course of time becoming a symptomatic one, with continued elevation of temperature as a result of the secondary inflammatory lesions that have been set up.

As the symptoms would likely merge imperceptibly into each other, we could not positively recognize the occurrence of this change in the character of the fever, except by constant and systematic examination of the various organs of the body during the course of the disease.

This is what usually takes place in cases of catarrhal continued fever, and it is this that has probably led many physicians to doubt its existence and fail to recognize it as a distinct fever.

Bronchitis being the constant complication, or rather symptom, in most of these cases, we can readily understand how the catarrhal condition of the mucous membrane will in time extend downward, and by continuity invade the pulmonary structure, producing a catarrhal pneumonia, or more correctly speaking, a broncho-pneumonia, the child's vitality being depressed by the prolonged effects of high temperature, and, therefore, placed under the most favorable conditions for the appearance of this complication.

The division of these fevers that I have made may

appear somewhat minute and unnecessary, but I believe that if we studied them according to this plan it would greatly aid us in the matter of their differential diagnosis from the infectious diseases, the only point of any practical importance to us.

The few cases here reported are what I have led myself to believe to be typical examples of essential catarrhal continued fever, met with both in children and in adults, and caused or in some way connected with our recent epidemics of influenza, but a fever quite distinct from its acute or epidemic varieties.

The term catarrhal fever, applied to these cases, is rather inappropriate, for I could never satisfy myself that the catarrhal conditions that were always present accounted for the degree of pyrexia, especially during the first few days of the disease.

Nervous fever, or a fever depending upon some toxine circulating in the blood and affecting the heat-centers, would be more applicable to these cases and would be more likely to explain the prominent symptoms.

Fever, cough, delirium, or hebetude, oftener the latter; decided hyperesthesia, both local and general; loss of appetite and constipation were the most pronounced symptoms observed in children. The fever always ran a course of several weeks' duration, either ending by lysis and ultimate recovery, or becoming indefinitely prolonged by the presence of complications, or when it attacked persons whose vitality was already reduced by some chronic ailment, frequently ending in death.

The diagnosis from the symptomatic fevers was made:

1. From the simple continued fever, or febricula, by the higher range of temperature, its epidemic character and longer duration.

2. From thermic fever, by the presence of laryngeal cough, and the fact that it occurred both in epidemic form and at all seasons of the year, irrespective of temperature or weather.

3. From typhus, or typhoid, fever it might be frequently impossible to differentiate, especially during the presence of these diseases in epidemic form. In the typhoid fever of children, both diarrhea and spots are often wanting. The abdominal symptoms are slight, the fever likely to assume a distinctly remittent type, and, on the whole, running a shorter course than in adults. The spleen is, however, always enlarged; the nervous symptoms are prominent; bronchitis is usually present; epistaxis rarely occurs; and the mortality is low. According to Dr. George B. Wood, there is an extraordinary susceptibility to the action of cathartics in the disease under consideration. The presence of herpetic eruptions on the lips and face is also said to exclude its existence in children.

4. Relapsing fever, by the absence of enlarged spleen or liver, of jaundice and articular pains.

5. From tuberculous meningitis it might be quite a difficult matter, since cases are mentioned in which, notwithstanding the presence of extensive cerebral disorganization, there were no convulsions or evidences of paralysis. On the other hand, its abrupt commencement, and the absence of strabismus, irregularity in the pupils, arrhythmical pulse and respiration, constant and peculiar vomiting, and violent screams, should exclude the existence of meningitis. Only in its more rapid onset and higher range of temperature do the symptoms of acute meningitis differ from those of tuberculous inflammation of the membranes of the brain.

6. From acute general miliary tuberculosis I doubt whether it could be distinguished, except by the usual fatal termination of the latter.

7. From malarial remittent fever, by the absence of chills and sweats, but above all by the careful examination of the blood with a view of determining the presence or absence of Laveran's plasmodium.

8. From yellow fever it would be a difficult matter, especially in countries in which this disease is prevalent all the year around. In fact, Guitéras is authority for the statement that yellow fever in the tropics can only be diagnosticated from the simple continued fevers of children by the fact of the increased mortality from meningitis, dentition, malarial remittent fever, etc., occurring during certain seasons of the year.

9. From central or abortive pneumonias there should be no doubt in the diagnosis after the first few hours.

10. From catarrhal pneumonia, or broncho-pneumonia, by the change in both the character and frequency of respiration, the absence of all abnormal physical signs in the chest denoting catarrhal fever, and a dry cough out of all proportion to the local symptoms. The advent of catarrhal pneumonia is slow and insidious in children, but we should always be able, no matter at what stage of a prolonged fever, to detect its presence by the physical signs, the increased temperature, or its greater remissions during the day and changes in the character of the cough, which would become looser and more frequent.

Of the treatment of catarrhal continued fever there is little to be said. Antipyretics had little or no effect on the course of the fever, and although quinine was given in large doses, both by the mouth and in suppositories, its effects were, on the whole, disappointing. In fact, more reliance was placed on treating hyperpyrexia in these little patients by tepid baths than on the use of internal antipyretics. The baths not only reduced the temperature, but to a certain extent also relieved the great irritability

from which the patients all seemed to suffer. Case I was given $\frac{1}{800}$ of a grain of strychnine four times a day with a pepsin mixture for over three weeks. It was also given a teaspoonful of whiskey every two hours, night and day, for over four weeks.

The treatment, I should say, was purely symptomatic.

CORROSIVE SUBLIMATE AS A GERMICIDE.

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(Continued from page 370.)

KLEIN, in 1884, in reviewing Koch's work, makes the statement that mercuric chloride is of no more germicidal value than vinegar. Actuated by curiosity more than anything else, I made a few experiments on this point. The experiments made are possibly too few to draw any conclusions from, but they are given for what they are worth.

Apr. 12. One c.c. of subtilis culture; fifty c.c. of sublimate, 1 : 1000.
After twenty-two hours (April 15), many colonies had formed; after forty-one hours (April 15), seven colonies had formed.

Apr. 12. One c.c. of subtilis culture; fifty c.c. of a saturated solution of sublimate.
After seventy minutes (April 15), eight colonies had formed.

One c.c. of subtilis culture; fifty c.c. of sublimate, 1 : 100.
After twenty-two hours (April 18), no development had taken place; after forty-one hours (April 18), no development had taken place.

One c.c. of subtilis culture; fifty c.c. of vinegar.
After sixty minutes (April 15), very many colonies had formed; after one and one-half hours (April 15), very many colonies had formed; after twenty-two hours (April 18), many colonies had formed.

One c.c. of aureus culture; fifty c.c. of sublimate, 1 : 1000.
After twelve hours (April 15), forty-one colonies had formed; after twenty-three hours (April 16), no development had taken place.

One c.c. of aureus culture; fifty c.c. of vinegar.
After twelve hours (April 16), no develop- had taken place; after twenty-three hours (April 16), no development had taken place.

The vinegar used in the foregoing experiments was titrated with sodium hydrate, and gave a fraction over 7 per cent. of acetic acid. A different sample of vinegar was obtained and another set of experiments made.

Apr. 30. One c.c. of aureus culture; fifty c.c. of sublimate, 1 : 1000.
After thirteen hours (May 4), thirty-one colonies had formed; after sixteen hours (May 5), very many colonies had formed; after twenty-three hours (May 5), two colonies had formed.

One c.c. of aureus culture; fifty c.c. of vinegar.
After thirteen hours (May 5), six colonies had formed; after sixteen hours (May 5), no development had taken place; after twenty-three hours (May 5), no development had taken place.

One c.c. of subtilis culture; fifty c.c. of sublimate, 1 : 1000.
After twenty-three hours (May 5), no development took place; after thirty-nine hours (May 5), no development took place.

One c.c. of subtilis culture; fifty c.c. of vinegar.
After twenty-three hours (May 5), fifty colonies had formed; after thirty-nine hours (May 5), thirty-five colonies had formed.

This sample of vinegar gave on titration 6.3 per cent. of acetic acid.

Experiments with Eberth's Germ of Typhoid Fever.

The culture from which this germ was grown was one brought by Dr. Vaughan from Koch's laboratory some four years ago. It had, therefore, been grown on artificial media for at least four years, and we may reasonably suppose that its power of resistance to deleterious influence had been weakened by this long exposure to adverse conditions.

Apr. 7. One c.c. of a culture of Eberth's germ; fifty c.c. of sublimate, 1 : 1000.
After six minutes (April 12), two hundred colonies had formed; after ten minutes (April 12), eighty-two colonies had formed; after fifteen minutes (April 12), forty-one colonies had formed; after thirty minutes (April 12), twenty-one had formed; after sixty minutes (April 12), no development had taken place; after three and one-half hours (April 12), no development had taken place.

Control, using water instead of sublimate.
Apr. 12. Innumerable colonies had formed.

The culture used in the foregoing experiments was grown in alkaline bouillon in the incubator for thirty-six hours.

Apr. 19. One c.c. of a culture of the bacillus venenosus;[1] fifty c.c. of sublimate, 1 : 1000.
After thirty minutes (April 23), about four hundred colonies had formed.

In another series of experiments with the typhoid germs a comparison was made between the germs grown in bouillon and those grown on agar. Unfortunately the bouillon-culture was three days old, while the agar-culture was but thirty-six hours old. In the case of the agar-culture a few c.c. of bouillon were poured into the agar-tube and the germ rubbed off the surface with a platinum needle and the whole filtered.

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[1] One of Dr. Vaughan's list of typhoid germs.

Apr. 27. One c.c. of a culture of bacillus venenosus; fifty c.c. of sublimate, 1 : 1000.
Bouillon-culture — after thirty minutes (April 30), about three hundred colonies had formed.
Agar-culture—after thirty minutes (April 30), about one hundred and fifty colonies had formed.
Bouillon-culture—after forty-five minutes (April 30), about three hundred colonies had formed.
*Agar-culture—after forty-five minutes (April 30).
Bouillon-culture — after sixty minutes (April 30), about two hundred and fifty colonies had formed.
Agar-culture—after sixty minutes (April 30), no development had taken place.
Agar-culture—after sixty minutes (May 3), five colonies had formed.
*Bouillon-culture—after two hours.
Agar-culture—after two hours (May 3), one colony had formed.

One c.c. of a culture of Eberth's germ; fifty c.c. of sublimate, 1 : 1000.
Bouillon-culture—after thirty minutes, (April 30), thirty-two colonies had formed.
Agar-culture—after thirty minutes (April 30), one colony had formed.
Bouillon-culture—after forty-five minutes (April 30), twenty-six colonies had formed.
*Agar-culture—after forty-five minutes (April 30).
Bouillon-culture — after sixty minutes (April 30), twelve colonies had formed.
Agar-culture—after sixty minutes (May 5), no development had taken place.
*Bouillon-culture—after two hours (May 5).
Agar-culture—after two hours (May 3), no development had taken place.

(Plates marked * were through an oversight destroyed.)

Sublimate solution has not been extensively used for the disinfection of feces, writers on this subject generally stating that the large amounts of albuminous material present tend to delay its germicidal action. In order to see if it was merely a question as to the quantity of albumins present, the following experiments were undertaken.

Apr. 25. A portion of a stool of feces, estimated at one hundred grams, from a healthy individual, was placed in a beaker and one liter of sublimate, 1 : 1000, added. Over the mouth of the beaker was tied a sheet of filter-paper moistened with sublimate. Through this paper was passed a sterilized glass tube plugged with cotton. After twenty-four hours this tube was connected with the hydrogen sulphide generator, and the gas passed for some time. Three plates were then made, one from the liquid and two from the solid portion of the fecal mass.

Apr. 28. Each of the plates contained hundreds of colonies. No attempt was made to determine the species, but judging from the colonies alone, I would say that there were at least four species present.

In another experiment made April 29, I proceeded as in the foregoing, with the exception that the portion of feces taken was estimated at not more than twenty-five grams, to which was added one liter of a saturated solution of sublimate. After twenty-four hours the plates were made as in the previous experiment. The plate made from the liquid did not develop. The two plates from the solid matter each had many colonies.

The amount of hydrochloric acid formed when hydrogen sulphide was passed was doubtless sufficient to kill all germs, if any were living in the liquid.

NOTE.—It will be observed that the experiments given in this paper are not always arranged in chronologic order. In several instances when an experiment bore on a particular point it was placed under that heading, although made at a different time.

The almost universal practice of using sublimate, 1 : 1000, for disinfecting purposes is based on Koch's[1] statement: "By a single application for but a few minutes, without any previous preparation of the objects to be disinfected, an absolute disinfection of even the most resistant organism is guaranteed."

Gärtner and Plagge[2] claim that the staphylococcus pyogenes aureus is killed by sublimate, 1 : 1000, in eight seconds, the proportions of organisms and sublimate being the same as I have used.

Tarnier[3] and Vignal state that it is killed in two minutes.

Abbott[4] credits it with a much higher resistance.

In contrast with these statements my experiments show that, exceptionally at least, the germs withstand the action of sublimate as follows:

Staphylococcus pyogenes aureus; sublimate, 1 : 1000; twenty-three hours.
Staphylococcus pyogenes aureus; sublimate, 1 : 100; eleven hours.
Staphylococcus pyogenes aureus; sublimate, saturated; one hour.
Bacillus subtilis; sublimate, 1 : 1000; forty-one hours.
Bacillus subtilis; sublimate, saturated; eighty-five minutes.
Swine-plague; sublimate, 1 : 200; one hour.
Typhoid germs; sublimate, 1 : 1000; one hour.
Germs in feces; sublimate, 1 : 1000; twenty-four hours.
Germs in feces; sublimate, saturated, twenty-four hours.

It may be urged against the experiments that years of use by surgeons and practitioners have demonstrated that sublimate is a germicide. In reply to this I may cite the fact that the same credence was given to Listerism and the same long experience was urged as confirmatory; and, again to the more

[1] Koch: Mittheilungen aus dem Kaiserlichen Gesundheitsamte, 1881.

[2] Gärtner and Plagge: Verhandlungen der Deutschen Gesellschaft für Chirurgie, vierzehnten Congress, 1885.

[3] Tarnier and Vignal: Arch. de Méd. expérimentale et d'Anatomie pathologique, 1890.

[4] Abbott: "Corrosive Sublimate as a Disinfectant against the Staphylococcus Pyogenes Aureus," Johns Hopkins Hospital Bulletin, April, 1891.

recent practice of aseptic surgery (which was the real secret of success in using both carbolic acid and sublimate), in which the results are better than with any of the antiseptics.

Frommel,[1] with an experience of some two hundred laparotomies, using at various times carbolic acid, sublimate, and asepsis, gives the preference to the last, and his results are practically in accord with all recent surgery.

The resisting power of the tissues to the invasion of germs has not received due attention from writers on antiseptics. Whether the power resides in the leukocytes, blood-serum, or what not, does not matter. Laboratory experience has shown that in order to be sure of infection, with most germs at least, we must introduce relatively large quantities. The fact that a given operation was performed antiseptically and no infection followed, by no means warrants the conclusion that the antiseptic was the cause of the non-infection.

It is to be noticed that in these experiments, the germs were placed under the most disadvantageous conditions, while for the disinfectant the conditions were the most favorable that could be devised—*i. e.*, so far as possible the germs were isolated from each other and distributed throughout a large quantity of the disinfectant. In nature and at the operating-table these conditions do not obtain. Germs are generally found in masses, are contained in albuminous fluids, and hidden or surrounded by such matters as are but slowly permeable by fluids that do not coagulate them; whereas such a fluid as sublimate solution would, in some cases at least, be hours, or possibly days, in reaching the germs contained in pus, blood-clots, feces, etc., and then would require further hours or days to destroy the germs after reaching them. Again, as pointed out by Gruber,[2] solid media, as gelatin and agar, and room-temperatures are not favorable to the growth of bacteria that have been under the influence of disinfectants.

Recognizing as we must, from daily experience in the laboratory, that our artificial media are at best but poor substitutes for the natural media on which germs grow, having in mind that the germs often fail to grow or grow but feebly on such media —with the foregoing facts in mind and yet seeing the experiments show that even under these adverse conditions the germs are still capable of growth after having been in sublimate for hours or even days, we are forced to the conclusion that the *germicidal* power of solutions of sublimate has been enormously overestimated.

[1] Frommel, Review of, in Centralbl. f. Bakteriol. und Parasitenkunde, 1891.

[2] Gruber: "Ueber die Methoden der Prüfung von Disinfektions-mitteln," Centralbl. f. Bakteriologie und Parasitenkunde, Bd. xi, Nos. 3 and 4.

However, the proof that sublimate is not a good germicide is no proof that it may not be valuable as a disinfectant. As is well known, of all substances it has the greatest antiseptic power, and, if my interpretation of its action be correct, it follows that a germ treated with sublimate, and possibly with solutions more dilute than 1:1000, unless, perchance it gets into the blood or is exposed to very exceptional conditions, is powerless to grow—that is to say, it is probable that a spore of subtilis or anthrax treated with sublimate, 1:1000, and then thrown on the soil or into water will not germinate, owing to the fact that the capsule of sublimate surrounding it is not removed.

The following is a summary of the results of my experiments, and the conclusions that it seems to me they justify:

1. The high rank heretofore given corrosive sublimate as a *germicide* is without warrant and was based on faulty experiments. These faults were in the main two: among the older experimenters, carrying over with the disinfected material enough of the sublimate to act as an antiseptic; in the later experiments, as those of Abbott,[1] the failure to recognize the fact that the organic compound of the sublimate with the investment of the germ, especially with the use of solid media, is sufficient to act as an antiseptic; and from a failure to obtain a growth, the false conclusion is drawn that the germ is dead.

2. The very varying power of resistance in different cultures, as pointed out by Esmarch,[2] and insisted on by Gruber,[3] is an all-important factor to be noted in determining the germicidal value of any agent.

3. That sublimate forms with cellulose, as cloth, filter-paper, etc., with silk, with albuminous bodies, with some part of bacteria, probably the envelop, a chemical compound that cannot be removed by any amount of washing with water. Thus sublimate when acting on a germ, forms a capsule around it that protects the germ for a time from the further action of the sublimate, and, in turn forms an impenetrable barrier to the growth of the organism, unless removed. This barrier may be removed with salines, and is more rapidly removed in proportion to the renewal of the saline, conditions that are fulfilled in the circulating blood. The action of sublimate on bacteria is probably closely analogous to that of alcohol. All experience leads us

[1] Abbott: "Corrosive Sublimate as a Disinfectant against the Staphylococcus Pyogenes Aureus," Johns Hopkins Hospital Bulletin, April, 1891.

[2] Esmarch: "Milzbrandsporen als Test-Objekten bei Prüfung von Disinfektionten," Zeit. f. Hyg., 1889.

[3] Gruber: "Ueber die Methoden der Prüfung von Desinfektions-mitteln," Centralbl. f. Bakteriologie und Parasitenkunde, Bd. xi, Nos. 3 and 4.

to believe that absolute alcohol is immediately fatal to protoplasm, and the only way that we can explain the fact that spores may survive in absolute alcohol for weeks, is on the assumption that the alcohol somehow changes the envelop of the spore, rendering it impermeable.

4. The presence of a gelatinous envelop in many, if not all, bacteria, at certain stages of their life-history has not received the attention it deserves. De Bary[1] insisted on this long ago. Now and then, in staining old cultures of bacilli especially, one may notice a halo or dim line surrounding the organism, generally at a distance about that of the diameter of the organism itself. I have observed this frequently, but cannot state just what the conditions are under which it occurs. Of course, this or something similar must be present in all germs forming zoöglea, as well as in the capsule-forming germs. This envelop probably serves the organism in protecting it against temperature, dehydration, and chemical agents.

(*Note.*—Since writing the foregoing I have reread De Bary's statements as to the envelop of bacteria. He points out that it is generally present, but far more prominent in bacteria grown on solid media, for the reason that being gelatinous, it is largely dissolved in fluids. If this be true, and if my explanation of the action of sublimate be true, it follows that had I used germs grown on solid media the results of the experiments would have been far more unfavorable for the sublimate, and, the foregoing suppositions holding, had the germs been air-dried their resistance to sublimate would have been yet more marked.)

5. That while sublimate has no great germicidal power, it does not follow that it is not a valuable disinfectant. Whether the germs contained in solutions treated with sublimate and disposed of as such material usually is, do or do not grow remains to be proved.

CARCINOMA UTERI IN THE NEGRO.

BY MIDDLETON MICHEL, M.D.,
PROFESSOR OF PHYSIOLOGY AND MEDICAL JURISPRUDENCE IN THE MEDICAL COLLEGE OF THE STATE OF SOUTH CAROLINA, AT CHARLESTON, S. C.

THE degree of interest now centered upon the negro in his social, political, and racial relations to the white man demands that he shall have his special history clearly established and written. To the medical scientist particularly we look for the supposed racial distinctions that are to individualize him, and to the medical men of the Southern States the expectation of all Europe has doubtless been turned for many years in the hope of a solution of this problem. We must confess, however, that a most neglected department of medical research is very apparent, in which there exists so much uncertainty on the one hand, and such positive misapprehension, on the other, of those demologic features that the negro really presents, and which have been within our reach and directly before us for the past hundred years. Interest in this question, of course, centers in any determinate pathologic or anatomic peculiarity; in any fixed organic difference always to be recognized, classic and distinctive—which thus may become of the greatest moment in all ethnologic inquiries based upon scientific data, not to be discussed as a matter of simple opinion or theory, but to be predicated of incontrovertible facts.

The erroneous statements advanced respecting peculiarities supposed to distinguish the negro from the Caucasian show great neglect of accurate research, considering the facilities presented throughout our Southern States for a rigid inquiry. It is only a few years ago that a case of hare-lip in the negro was presented to a concourse of medical men as an extremely rare occurrence in the true African, and the remark was received unchallenged. Upon investigation, however, this abnormality of development was shown to be far more common in the black than in the white race. With like positiveness carcinoma of the uterus is said to be scarcely ever met with in the negro, while fibroids of the uterus are pronounced to be so common that the dissecting-room seldom furnishes, it has been stated, a perfectly healthy uterus in a female negro subject, or one void of some fibroid growth.

Remarks of this character are constantly made as expressive of personal experience or possible conviction, with no reasonable foundation, and the statement is received, though based upon unreliable statistics, and is heralded again and again by each writer on the subject. Schroeder makes the following statement: "North American authorities agree that negro women, in whom uterine fibroids are singularly common, are very seldom affected by carcinoma uteri, or, indeed, by any form of carcinoma. Thus Whitall, of New York, saw only two cases of malignant disease of the uterus among 2000 colored women treated by him."

Such statistics and such assertions we are compelled to set aside as entirely untrustworthy, because unfortunately incorrect. They have arisen, perhaps, from some preconceived misapprehensions as to certain pathologic principles, as where skepticism obtains as to the associated development of carcinoma of the cervix and fibro-myoma. Believing, forsooth, that the fibroid and carcinomatous diatheses are incompatible, the natural inference would be that where fibromata are so frequent *in utero*, carcinomata must surely be rare. But who is ready to

[1] De Bary: "Vorlesungen über Bakterien," 1886.

affirm that carcinoma and fibroma are antagonistic growths? Who has shown that these conditions are never met conjointly? The entire fundus uteri has been seen occupied by a large fibroid, while the lower segment and entire cervix were invaded by a medullary carcinoma. It may even be questioned whether the corporeal endometrium is always in its normal condition when the cervix is carcinomatous. Besides the presence of fibroids, the mucosa is, perhaps, often infiltrated with round cells. More than once have I recognized small fibrous, degenerated growths throughout the fundus that seemed to have been the real source of the hemorrhages that had so severely harassed and weakened my patient with well-marked carcinoma of the cervix.

Again, is it correct to declare that fibroids are so very common in the black race? Years of experience, now reaching to half a century, in the labors of the dissecting-room and clinical autopsy-hall, entirely, or at least largely, among the negro race of the South, by no means corroborate such statements. We protest against such declarations, for we have not found fibroids of the uterus so frequent—much less a constant condition of the negress's womb.

Now, the exemption of the uterus from carcinoma in Africans was perhaps first particularly insisted on by the late Dr. Fordyce Barker, and J. C. Knott's observations or opinion seemed to sustain the assertion. Indeed, the general consensus of professional opinion seems to exclude the negro in part from uterine carcinoma. But such questions as these, in an empirical science like ours, are not to be determined like matters in politics, by public acclamation of a majority or a minority on one side or another; we have only to pursue the investigation patiently through a series of authentic cases, where opportunities for research are so readily at hand as among us in the South. Connected, as I have been for years, with the Board of Health of Charleston, S. C., which requires a death-certificate from every attending physician, detailing the primary and secondary causes of death, the sex, age, race, and residence, etc., of the deceased, before burial is permitted, I have had ample opportunity of verifying the facts in any doubtful case, by direct inquiry of the physician making the return; and thus having accumulated, from a population of 60,000, evidence sufficient to determine this particular question, I shall simply furnish the record carefully kept on file in this office for the past *fourteen* years, which speaks for itself.

I claim no other merit in this paper but what may be attached to a patient and persevering investigation, throughout the series of years named, of the subject under consideration: results not simply collated from already published statistics, tabulated for public record, but cautiously obtained as they came to hand serially, and often even verified in person at the bedside, sometimes at the autopsy, and always in consultation with the one who made the report, when doubt or difficulty obtained respecting any particular case; I may also say, sometimes even rectifying misstatements in the report while ascertaining the real nature of the disease.

Now, the value of statistics depends upon their accuracy, for which I have given every guarantee; and again upon their multiplication—indefinitely, if possible, whenever we are dealing with simple facts such as bear no relation to cause and effect; for the greater the numerical statement—that is, the more numerously the instances are multiplied, the more certain we are to avoid the accidents of chance, and to escape simple coincidences. We may then rely upon the result in proportion to the absolute increase of such instances as constitute what logicians have termed prerogative facts. To illustrate what I mean, let us suppose one year's result to furnish cases of carcinoma in the whites and none in the blacks. Such an experience would seem to imply at once that the disease does *not* occur among negroes. Continue these statistics a little further. Then the occurrence of a few cases among blacks would now indicate that this race is not wholly exempt. Pursue the research still a few more years, and perhaps the predominance then in the blacks would strangely embarrass our conclusions, and such experiences might continue to recur until frequent repetitions in the progress of the investigation would gradually lessen this conflict of evidence, and progressively reach a more evident and exact result.

The conditions of such a requirement as we have aimed at on this occasion are, perhaps, completely fulfilled in extending these statistics through fourteen consecutive years, especially when associated with statements before me from many correspondents throughout our Southern States, whom I have interrogated on the subject, and whose replies contain many interesting particulars, all tending to prove that, in ratio of the population of the two races in their immediate vicinity, carcinoma uteri obtains as frequently in the one as in the other.

Year.	Whites.	Blacks.	Total
1878	3	5	8
1879	1	2	3
1880	3	3	6
1881	2	2	4
1882	3	2	5
1883	4	2	6
1884	3	4	7
1885	6	7	13
1886	6	6	12
1887	2	1	3
1888	3	2	5
1889	4	3	7
1890	4	5	9
1891	4	9	13
	48	53	101

The reader will observe that the statistics for the fourteen years, from 1878 to 1891, give forty-eight cases among the whites, and fifty-three among the negroes. Estimating the negro population at 36,000, and the white population at 28,000 (which in round numbers is about the ratio of population of the two races in our midst), we have among the whites $1\frac{5}{7}$ cases, and among the negroes $1\frac{3}{4}$ cases to every 1000 of the population—a very slight difference. We would call particular attention to the foregoing table.

We have produced these results in order to prove that carcinoma of the uterus is very nearly as frequent in the negro woman as in the white woman; and we wish to emphasize the statement by the foregoing carefully prepared record, as we are unwilling that it should go forth to the world that the physicians of the Southern States of North America, with ample means of ascertaining the truth in so simple a problem, have in anywise endorsed the oft-repeated assertion of Europeans on this subject.

In announcing that carcinoma is as frequent in the one race as in the other we see no reason why this should have been otherwise. What should so specially immunify the negroes from carcinoma uteri when we are sometimes treating them for carcinoma in other parts of the body? In our clinical instruction and surgical operations before our classes, cases of carcinoma of the eye, of the breast, and of the stomach, kidneys and rectum, present themselves; and it should be remembered that carcinoma more frequently attacks the uterus than any other organ; the breast comes next in order; while the other organs then follow in frequency of invasion. If we look again to the accepted etiology of carcinoma of the womb we should undoubtedly consider the colored people as specially liable to it. When we remember the unbridled licentiousness of this people, their profligacy, the attendant traumatisms about the cervix in women who have borne many children, we surely find conditions that, to say the least, could scarcely be supposed to render the black race exempt.

The study of the malignant tumors and diseases of the cervix and body of the uterus is still surrounded by some difficulty. We have not, therefore, attempted to separate malignant papillary tumors from cancroids, nor these from true carcinomata. We have throughout these inquiries used the term carcinoma in a somewhat generic manner, without drawing distinctions between scirrhus, encephaloid, or epithelioma, and still less between these and colloid, which is but a degenerescence of the former; but considering with some authorities all forms of carcinoma as rebellious conditions, or diseased states of the epithelia, commencing in a soil thick with these initial elements, and therefore most frequently in the cervix, we have here merely referred to that proliferation or hypergenesis of an atypical epithelial neoplasm recognized in a general sense as carcinoma, because sooner or later found to terminate in septicemia and death, and rarely lasting over a year or fifteen months.

HEADACHE DUE TO EYE-STRAIN.[1]

BY WILLIAM C. BANE, M.D.,
OF DENVER, COL.,
LATE LECTURER ON THE DISEASES OF THE EYE AND EAR, IN THE WESTERN PENNSYLVANIA MEDICAL COLLEGE, PITTSBURG, PA.

DURING the past few years the subject of reflex headaches, especially those due to eye-strain, has been studied and discussed by many physicians devoting their time to the diseases of the eye and the nervous system.

Headache from eye-strain is an old and valuable discovery, although it received little or no attention until within the past few years, and even now it is by many considered of small importance.

Headache is a prominent symptom in a large percentage of functional disorders. How prone we are to attribute the ache to some disorder of the digestive system, and proceed to prescribe, omitting to inquire whether the headache develops after using the eyes for close work for an hour or two, and whether there are also some aching of the eyes and, at times, dimness of vision.

Among civilized races the percentage of abnormal or defective eyes is estimated to be from 75 per cent. to 90 per cent. Various investigators have furnished statistics, giving the percentage of emmetropic or normal, and of ametropic or abnormal eyes. In a study of the eyes of 90 medical students, Dr. B. A. Randall,[2] of Philadelphia, found but 12.2 per cent. with emmetropic eyes. Of the 180 eyes 18.8 per cent. were emmetropic. The results of these examinations, made with the eyes under the influence of a mydriatic, are in accord with similar reports made by foreign investigators. Three years later, Dr. Randall,[3] in his "Analysis of the Statistics of the Refraction of the Human Eye," concluded that approximate emmetropia did not exceed 10 per cent.

In reviewing the writings of others on headache due to eye-strain, it seemed to me, as perhaps it does to others, that there has been a disposition on the part of some of our eye-surgeons to give undue prominence to ocular defects as a cause for headache. After an analysis of 300 cases of error of refraction, however, as they appear on my record-books, as a basis upon which to form an opinion, I

[1] Read before the Denver and Arapahoe County Medical Society, May 24, 1892.

[2] Transactions of Pennsylvania State Medical Society, vol. xvii.

[3] Heidelberg Congress, 1888.

am prepared to confirm the views of a number of conscientious observers, that of the entire number with error of refraction, from 55 per cent. to 60 per cent.[1] suffer more or less with headache, the exciting cause being eye-strain.[2]

It has been my rule, in examining persons with errors of refraction, to learn of any eye-ache or headache, especially frontal headache, that existed before wearing glasses, and after correction, to request the patients to report in a few weeks whether or not they had been relieved of the unpleasant symptoms. In preparing the following table I have excluded, with a few exceptions, cases that failed to report, though I am satisfied that many of them obtained, in the correction of their ocular defects, the desired relief:

Form of error.	Males.	Females.	Number of cases.	Number with eye-ache.	Relieved of eye-ache	Partially relieved of eye-ache.	Number with headache.	Relieved of headache.	Partially relieved of headache.	Failed to report.
H.	17	31	48	41	35	5	26	21	5	1
M.	5	5	10	6	4	2	6	6	...	
H. As.	11	39	50	43	33	6	25	19	6	
H ⊂H.As.	16	45	61	45	41	3	29	25	3	2
Mixed As.	9	17	26	23	20	1	18	16	1	3
M. As.	31	30	61	46	41	5	40	34	3	3
M.⊂M.As.	15	29	44	31	28	3	27	21	5	1
Total with As.	...	...	242	188	163	18	139	115	18	9
Total	...	...	300	235	202	25	171	142	23	10
Per cent.	...	...	...	78.3	85.9	...	57	83.	13.4	

A number of reports have been furnished the profession, giving the percentage of cases of headache due to ocular strain, in which statements have been made that correction of the errors gave relief; but few, however, have given the percentage of the cases thus treated that were relieved.

We have learned from the investigations of others that 90 per cent. of the civilized race have defective eyes. I have shown that 57 per cent. of my cases with errors of refraction suffered with headache; also, that 79.8 per cent. of these were relieved by the correction of ocular defects, while 23, or 13.4 per cent., were partially relieved.

From the foregoing facts it is patent that we have in a very large percentage of our race a fruitful source of reflex headache, and that we have it in our power to render the aid to Nature that will relieve a great deal of suffering, not to mention the improvement in vision to be gained by many in the *proper* adjustment of glasses to their eyes. I say proper adjustment of glasses, for, I am sorry to say, a great deal of imperfect refraction-work is done. Physicians are too apt to refer to an optician the patients whom they suspect need glasses. I am informed that the opticians of this city add to the price of their spectacles their charge for the examination, an examination that, owing to their lack of knowledge of the anatomy and physiology of the eye, cannot be perfect. Then, again, persons under thirty-five or forty years of age cannot be properly corrected unless the accommodation is paralyzed. Of the 300 cases reported in my table, 225 were under thirty-six years of age; in all atropine, hyoscyamine, or homatropine was used. In my table I omitted cases in which only prisms were prescribed, but for quite a number of the cases prisms were combined with the correcting-glass, or the sphericals were decentered.

Of patients with headache due to eye-strain we cannot say with Ambroise Paré, "I tend him, God cures him."

STEELE BLOCK.

[1] "Statistics and Lessons of Fifteen Hundred Cases of Refraction," by George M. Gould, A.M., M.D., in the Journal of the American Medical Association, vol. xviii, p. 432.

[2] "Analysis of Two Hundred Cases of Errors of Refraction," by H. B. Ellis, B.A., M.D., in the N. Y. Medical Journal, vol. lv, p. 490.

A PLEA FOR THE CONTINUATON OF OUTDOOR SPORTS IN MIDDLE AND ADVANCED LIFE.

BY JOHN GRAHAM, M.D.,
OF PHILADELPHIA.

THE physician's object is not alone to cure; his higher mission is to aim at the prevention of disease. To this latter end he endeavors to destroy or neutralize the germs of disease and their products, and to produce such a condition of bodily health and vigor as will enable the individual to be proof against the entrance of disease. Chief among the means to establish this resistance he recommends outdoor exercise.

With a like object in view our colleges have employed skilled teachers to develop the physical as well as the mental powers, and their successful after-results are seen among our young men and men of middle life, and handsome girls are not ashamed of brown faces and well-developed muscles.

Unfortunately, when college ceases, the exercise ceases, and educated Americans past thirty are wild to see a base-ball match, but seldom think of taking part in the play. The latter is left to paid professionals; and of all who have lapsed in this respect, the doctors lead the van. The words athletic and sport attached to a doctor's name fill him with professional horror, and if perchance he does partake of the forbidden joy, he sneaks away, as if to the commission of a crime.

How different is it with our English cousins. The educated Englishman of middle life, even when he affixes M.D. to his name, is proud to be known

as an athlete, and the English public has learned that a man may be a good physician as well as a good cricketer.

Some years ago a team of amateur English cricketers visited Philadelphia and vanquished a picked eleven of Philadelphians on a Saturday. On the following Sunday the English captain, Rev. ——, preached a first-class sermon in one of our churches. Like instances are numerous in England. How rare in America!

Uneducated to the pleasure and advantages of outdoor sports, the mental laborer, wearied in mind and body, too often turns to cards, chess or billiards—midnight games, with their dangerous associations, loss of sleep, and gambling. Oh, that such a one could feel the keen joy and exhilaration of him who follows a pair of setters in search of quail on a crisp clear day in November.

No one advanced in years can indulge in outdoor sport with skill, pleasure, and benefit, unless he has followed it from youth to manhood and so on through life. Therefore, I would urge our boys to continue their favorite sport, and we should assist them early in life to select one, the pursuit of which will least interfere with their individual life-work.

If the desire exists, the opportunity will generally be found, and the man of sixty, equally with the boy of sixteen, can enjoy his horseback, cricket, or gunning; but the desire, with the physical ability to exercise it, will only exist when fostered from youth and suitably used and not abused.

Many, myself among the number, prefer gunning, and I think it has certain advantages. Its indulgence means early to bed and early to rise. There is no loss of sleep or owl-work in this sport; no confinement in close rooms or vitiated atmospheres; but, far removed from the din and bustle of the great city, in the fields and woods, and with no cover but the sky, and surrounded by pure oxygen—there and there only can this sport be indulged in.

Its surroundings are not such as conduce to intemperance, either in eating or drinking. No *table d'hôte*, imported wines, or Havana cigars are found in the humble abode that generally shelters the gunner, and a whiskey-bedimmed brain but ill fits one who carries in his hand a weapon which, handled carelessly or ignorantly, may deal out death, not to birds, but to the gunner himself, or still worse, to his comrade. Therefore, gunners should be, and generally are, temperate.

Some English experts recently said that American workingmen accomplished as much in two days as their men did in three. In our professional life we pursue the same rush. There is all work and no play. As a consequence, the roadside of life is strewn with the physical wrecks and dead bodies of those who have fallen before they reached full mental development.

The age at which reason and judgment are at their best is nearer fifty than forty years, yet how many physicians wear themselves out in the thirties.

A professional gentleman told me recently that he rested himself by studying geology. Some others in the search for relaxation write on subjects outside their own calling, substituting one form of mental work for another, and claim that it gives them the required rest; but how illogical! What would we think of the bricklayer who for rest would help the carpenter? For true rest, the wearied mind must cease all labor, and better still fly to outdoor exercise.

The phrase "fat and forty," unkindly applied to women, might with equal truth be applied to many of the male sex who lead a mentally active and physically lazy life. With from twenty to forty pounds of extra flesh, which adds but weight to be borne by their soft and flabby muscles; with hearts weakened by muscular atrophy and fatty degeneration; short of breath and always tired; such too often completes the picture of the men who are not and never were lovers of outdoor sport.

Of their opposites I saw a dozen recently at the cricket grounds: Men between thirty-five and fifty years, with spare frames, hard muscles and clear bright eyes, and although engaged in active play, showing no signs of fatigue. Almost without exception these were men who had won success by mental labor, and every one had continued from youth to the present his favorite active exercise.

326 SOUTH FIFTEENTH STREET.

BACTERIA IN BOTTLED WATERS.

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AT the suggestion of Dr. Billings, Director of the Laboratory, an examination has been made of certain so-called table-waters which are largely sold in bottles and in casks throughout the country, with reference to the microörganisms that they contain. Various brands are being examined, but the results obtained in the case of one of these waters, known as Poland water, seem worthy of publication at the present time, as they indicate a possible source of contamination of such water after it comes into the hands of the retail dealer.

The samples of Poland water examined came from different druggists. In three bottles which, according to the labels, had been filled and corked directly at the spring, the number of bacteria found was 300 to the cubic centimeter, which is not a larger number than good potable water usually contains. These organisms were of two kinds: one, a mould,

not identified, the other a motile bacillus resembling in some respects the typhoid-bacillus of Eberth, but readily differentiated from it by culture-methods.

In two samples of the same water that had been obtained from the spring in large vessels and transferred to soda-water tanks, in order that the water might be sold by the glass from the fountain, there had been contamination. One of these contained 6000 and the other 57,000 bacteria to the cubic centimeter; and in the flocculent sediment in the eight-ounce bottles in which the specimens were obtained, were found various forms of ameba, of flagellate protozoa, of radiolaria, and of one form of algæ.

It would seem probable, therefore, that this water had been mixed with some less pure water in its transfer to the tanks from which it was drawn for sale; but it is very possible that this may have resulted, not from a deliberate mixture, but from washing out the tanks with an impure water.

In these days of general doubt and suspicion of water-supplies, it is desirable that the man who buys a bottled water, in order to avoid possible risks of typhoid or of cholera, should be able to have some assurance that he is really getting what he supposes he is paying for.

A bacteriologic examination of any water is only trustworthy when it is made at the source, or with special precautions as to sterilized vessels, cold storage, etc., if the water is to be carried for some distance before examination, because the bacteria multiply rapidly at first in the bottled water and then largely die out, leaving, however, their products behind them.

Bacteria in bottled or cask waters are not necessarily derived from the spring itself. They may be introduced in the process of cleansing the vessels, or from the persons of those engaged in filling them; and, hence, a very serious responsibility rests upon those who furnish such waters from the spring, and still more upon those who handle it for sale in such a way as to mix with it even a few drops of other water.

ORIGINAL LECTURE.

ANGIO-FIBROMA OF THE NOSE—RACHITIS—MORTON'S PAINFUL AFFECTION OF THE FOOT—TUMOR OF THE ABDOMINAL WALL.

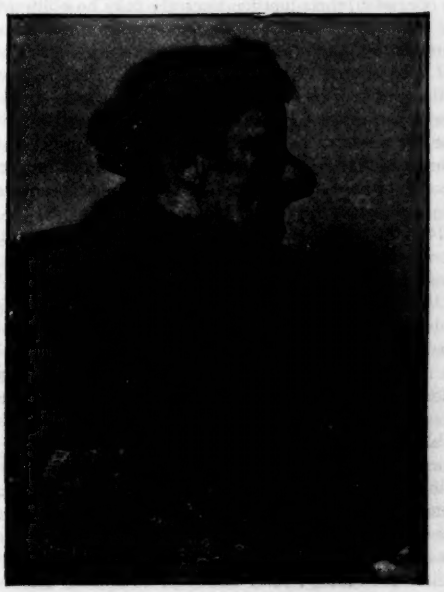
A Clinical Lecture
Delivered at the Buffalo General Hospital.

By ROSWELL PARK, A.M., M.D.,
PROFESSOR OF SURGERY IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF BUFFALO.

ANGIO-FIBROMA OF THE NOSE.

This patient is a woman of forty-six years, who presents a peculiar and interesting condition of the nose. She tells me that even when a little girl there was a red spot at the tip of her nose, but rather on the left side. The area of redness and vascular development and the size of the nose have gradually increased with each pregnancy (she has had seven children) during the latter months of gestation. This is not unusual in the history of new-growths of any kind occurring in pregnant women.

If it were not for the conspicuous, red color, the enormous size and distorted shape of the nose, the growth would scarcely occasion any inconvenience, for it is not painful, except at one tender point at the outside where there may have been a little ulceration or where a nerve may have become involved in the new-formed tissue. The nose is perfectly soft and mobile, and the history and the present appearance eliminate at once all suspicion of malignancy.



At first sight, the diagnosis of rhino-scleroma suggested itself. This is a rare disease, so rare indeed in this country that I have seldom said much to you about it, since I have not had the opportunity of showing you a case. In this disease there is sometimes an enormous enlargement of the nose, but not characterized by the dilated and tortuous vessels seen in this case. It is due to infection by a specific bacillus that seems to find its habitat just in this location. It makes an awkward and disfiguring enlargement at the end of the nose.

This case is not one of rhino-scleroma, for the growth is too vascular, and the history gives us every reason to regard it as congenital, although it has enlarged much during adult age. Some of the vessels are arterial, some venous. On inspection, the inside of the nostrils presents the same reddened and vascular appearance as is seen without.

The case was undoubtedly originally one of nevus or angioma, and, because of the vascularity and increased amount of nutrition carried to the part, there has been a hypertrophy, or, more strictly speaking, a hyperplasia

of the surrounding tissue, so that the resulting tumor is mixed, consisting partly of vascular and partly of fibrous elements, and it might properly be spoken of as an angio-fibroma. The trouble corresponds quite closely with what on the extremity of the body would be called elephantiasis. This part of the nose is peculiarly constituted, consisting of cartilage and fibrous tissue, and the skin is less mobile than over most other parts of the body. It scarcely finds its exact counterpart, except in the lobe of the ear. Vascular growths in either of these localities often lead to redundant growth of fibrous tissue in addition. The tumor is innocent; it is simply an annoyance. There is no danger to be apprehended from it, except that, as the patient says it bleeds occasionally, there might be a very copious hemorrhage from the accidental rupture of one of the larger superficial vessels.

I have told the patient that, if she chooses to undergo the operation, the superficial vessels may be obliterated and a V-shaped piece can be removed from the redundant portion, and the nose can be reduced to quite normal proportions. It will not look as if no such growth as this had ever disfigured it, but the appearance will be greatly improved. Galvanism might be used to obliterate the vessels, but hardly to cause absorption of the redundant fibrous tissue. With the patient's consent, the operation will be undertaken for purely cosmetic purposes.

The only thing that I ought to be particular not to sacrifice is the cartilaginous portion of the nose. I can take away as much as is necessary of everything else. A V-shaped incision is made with the apex over the middle of the bridge of the nose and the arms running down so as to remove a considerable portion of the left ala nasi, which is larger than the right. There is considerable hemorrhage, which is checked by pressure-forceps. The bleeding-points here are not the openings of bloodvessels in the ordinary sense of the word, but are more like blood-channels. Only a few of the bleeding-points require ligation after the removal of the hemostats. The wound is closed by a longitudinal row of catgut and fine silk sutures extending up the middle line of the nose. The more vascular left lateral and alar portion of the tumor I shall endeavor to reduce still more by applying the thermo-cautery inside the nostril. So much hemorrhage follows this procedure that it is necessary to plug the nostril with iodoform-gauze. Several rapid linear strokes are made with the cautery externally, so as to dispose of the more prominent superficial vessels.

[The patient was shown at a subsequent clinic with a nose of almost normal appearance.]

RACHITIS.

This baby is ten months old. I want you to notice that the head is flat, that each tibia is slightly curved, though not as much as is often the case in rickety children. As I pass my hand over the ribs I find a slight enlargement at the costo-chondral junction, the so-called rachitic rosary; it is not especially marked in this case. The mother had not enough milk to nurse the child, and that is probably the reason why it is rachitic. The child's bowels are described as being continually loose; it does not sleep well at night, but rubs its head in the pillow and it sweats a good deal on the forehead. Notice that I have elicited this information from the mother without asking leading questions. The average patient, if asked a direct question, will usually answer in the affirmative, but you can generally rely on the mother to notice carefully the baby's condition, and to give a correct history of the case without too close inquiry. The fontanels are still open, late closure of the fontanels being characteristic of rachitis. There is a very prominent backward curvature in the lower dorsal portion of the spinal column; this is not due to Pott's disease but to rachitis, for with such a degree of deformity in Pott's disease the child would not be sitting up and as active as it is. I have seen children with tuberculous spondylitis and curvature no more marked than in this case, in which there was almost complete paralysis of the lower limbs from pressure on the spinal cord.

As far as the back is concerned, some artificial support would be a good thing, for in all probability the condition is aggravated by allowing the child to sit up too much. If the child is kept on its back in the crib, no external support will be needed. It would be a pity to put this little child in a plaster-of-Paris jacket, for the baby is developing rapidly and the dressing would have to be changed often. A jacket of felt would be more convenient and more comfortable. With reference to the general treatment of rachitis, you have so lately listened to a didactic lecture on the subject that I need say nothing further here.

MORTON'S PAINFUL AFFECTION OF THE FEET.

The next patient presents a condition that is not generally recognized by the profession, and which, to the best of my recollection, has not gotten into the text-books, although journal articles upon it have appeared. I refer to a peculiar painful affection of the foot, and especially of the fourth toe, generally known as Morton's, because Dr. T. G. Morton, of Philadelphia, was the first to call attention to it, and to show how it could be cured.

The patient is a girl, twenty or twenty-two years old, who is slight in build and not of robust appearance, who has so suffered for ten years that she has almost been confined to the house. She has so much pain and tenderness of the feet that whenever she walks more than a few rods her feet hurt her so much that she wants to stop and rest, or even lie down. Lateral compression of the toes causes great pain, but there is no red or tender spot, the tenderness being so deep-seated that she finds it difficult to describe and locate it exactly. When I ask her which toe is the most painful, she points to the fourth. The condition is present alike in both feet. I see such a case every now and then, and just to illustrate how coincidences occur in actual practice, let me tell you that there was a lady in my office this morning from a town only ten miles from this girl's home, who came to consult me about a carcinoma of the breast, but who complained also of sciatica, which, on questioning and examination, proved to be a trouble of this kind.

The secret of this trouble, as Morton has told us in his paper, is the entanglement of a little terminal branch of a nerve between the heads of the third and fourth metatarsal bones. Any pressure upon the nerve-fibril gives the same kind of pain that arises in a diseased tooth. In fact, many patients will speak of this as a

toothache in the toe. I have known a lady who, at the dinner-table or in the theater, would be suddenly seized with this excruciating pain, and would make any excuse to get down and pull off her shoe. You will see on the skeleton that the fourth metatarsal bone is just enough shorter than the third for the head of the former to be almost apposed to the neck of the latter, and it is at this point that the entanglement of the nerve occurs. The operation devised by Morton consists in removing the head of the fourth metatarsal bone, and I have never known the operation to fail to give relief. In this particular case, the girl has had the trouble so long that now the sensations are more diffuse, but the history of pain beginning in the toe, gradually increasing and spreading up the foot and leg, is typical of Morton's disease.

The feet were soaked for some time yesterday afternoon and again this morning in an antiseptic foot-bath, and, as you see, have been wrapped in antiseptic compresses. The operation is not a serious one, but I want to have the parts heal by first intention, just as much as if it were a more dangerous condition. I will apply the Esmarch bandage, in order to control the hemorrhage. The incision may be made either from above or from below. In this case, I choose the dorsal aspect. The only point of caution is to avoid the tendon. After making the incision and exposing the head of the metatarsal bone, it is removed with cutting-forceps. The wound is plugged with antiseptic gauze, while the operation is repeated on the other foot. The wounds are closed and dressed antiseptically in the usual way.

TUMOR OF THE ABDOMINAL WALL.

Our next case is one that I saw yesterday without making an exact diagnosis, and I do not know that I can do so without the aid of the microscope. The patient is a woman of thirty-six years, who gives a history of having been scratched in the side by a broken corset steel some ten or twelve years ago, and having had develop, as the result, this tumor of the abdominal wall. The long duration precludes a diagnosis of carcinoma. The tumor is movable, it is breaking down, and it presents a gummatous appearance, but there is no other indication of syphilis, and I waver in diagnosis between syphilitic and tuberculous gumma, and a degenerating tumor of the abdominal wall. It may be that before I have completed the operation I can give you a more accurate diagnosis. Whatever diagnosis is made, the tumor must be excised, and the probability is that it will be necessary for me to go through the whole thickness of the abdominal wall and perhaps into the peritoneal cavity. Fibroma is the most common neoplasm of the abdominal wall. It occurs sometimes at a distance from the navel, sometimes near by, sometimes right at the navel. I had occasion last fall to operate on a man who was sent to me from out of town with a diagnosis of umbilical hernia. I found no such condition, but, instead, a pouting mass at the umbilicus, ulcerating on its surface, and evidently a solid tumor of some sort. I removed the mass, going down to and including the peritoneum. On microscopic examination the growth was seen to be mostly composed of fibrous tissue, but some of it was proliferating rapidly and bordered on the sarcomatous condition. It may be that this is something of the same sort.

This neoplasm evidently has included all of the tissues down to the peritoneum, which I open just to be sure that it is free. The elliptical defect made by its removal is easily closed by deep sutures of silkworm-gut. The tumor itself is a somewhat inflamed and degenerating fibroma. Possibly the microscope will reveal in it some sarcomatous elements.

CLINICAL MEMORANDA.

A CASE OF DIPHTHERIA IN WHICH THE MEMBRANE PERSISTED FOR A LONG TIME, WITH NEPHRITIS AS A SEQUENCE.

By J. A. HAWKINS, M.D.,
of Avalon, Pa.

The case herewith reported is of interest on account of the duration of the disease, as well as of the way in which the sequel manifested itself.

Walter W., ten years old, presented a good family and personal history. He was the eldest of six children, all of whom were living when the patient was taken ill. On June 3d I was called, and found the boy with a temperature of 102° F. The pulse was 98, and pretty strong. He complained of headache, malaise, and slight sore-throat. On inspection I found the tonsils enlarged, congested, and of a dark-red color, the right being the more swollen. No membrane could be seen. The glands of the neck were slightly enlarged. I told the parents to put the boy to bed in an isolated room. He was given six grains of calomel at once, and tincture of the chloride of iron, ♏vijss in sufficient glycerin to make a dram, every two hours, without any water for fifteen minutes after each dose.

I saw the boy again on the following morning. The temperature and the pulse were about the same as on the preceding day. There was also a spot of membrane, as large as the nail of the little finger and raised at least half a line. This I succeeded in stripping off with forceps, leaving a bleeding surface. I immediately directed the administration of mercuric chloride, $\frac{1}{80}$ grain, every two hours, in addition to the tincture of iron, which was continued as before, except that it was given in a wine-glassful of cold water. The throat was swabbed every hour with a solution of mercuric chloride, ½ grain to 4 ounces of water, the swab used being of cotton and being thrown away.

This treatment was kept up for about six days, and still the membrane spread. It involved the naso-pharynx, travelled on to the uvula and soft palate, along both cheeks, completely lining the buccal cavities, and thence to the under-surface of the tongue. At this time a sister was taken ill with the same disease. She was well in the course of two weeks. As the boy's heart began to weaken, he was given half an ounce of whiskey every two hours. At no time did he present any symptoms of mercurial intoxication, but at about this time he refused to take the iron. To show him the bottle would make him "boke," as the family designated the gagging. I then directed five drops of the iron to be given in half a tumbler of water, but still it was vomited. The addition of some lemon-juice failed to help matters. The whiskey also came up; and port wine was tried, but with no better results.

I attributed the vomiting to an overdose of eggnog, on which he was largely fed alternately with beef-essence. The boy now refused egg in any form, as well as milk, but craved for bean-soup, which was given him.

Things went on in this way for fully two weeks more, oil of eucalyptus and carbolic acid in glycerin and water being substituted as a swab. The mercuric chloride had been withdrawn on the tenth day, and, as the boy could not be gotten to take iron or whiskey, he was given tincture of digitalis, three and a half drops every two hours, and oil of eucalyptus (leaves), two drops every four or five hours. The eucalyptus was given not only as an antiseptic, but also as a deodorant, for the patient's breath was simply horrible. I have come to the conclusion that the fetor of diphtheria, like that of carcinoma uteri, is characteristic of the disease.

The membrane now began to disappear, not to return. Previously it would return a few hours after having been removed. In the course of the next three days, all had disappeared, except a thin film on the right tonsil. The right side of the throat and the right cervical glands were the most involved throughout the course of the disease.

The boy was now allowed to sit up, and in a few days he was walking around, although he still could not eat.

I now tried a fifteen-volume solution of hydrogen dioxide as a swab, and succeeded in removing the last spot of membrane, just about four weeks from the commencement of the disease.

The urine examined during the four weeks in which the membrane was present had a specific gravity of from 1.010 to 1.012, gradually reaching the norm in the last week. Albumin was present during three weeks.

The urine in the case of the boy's sister maintained a specific gravity of from 1.004 to 1.006 for six days, but presented no trace of albumin, as tested for by heat and nitric and picric acids.

Two weeks after the boy was around, he again began vomiting. I tested his urine once, and found no albumin. Bismuth, calomel, carbolic acid, and ice were all tried with no results. The vomiting persisted for two weeks, during which time he was nourished by enemata of peptonized milk and whiskey.

Dr. J. Chris. Lange, of Pittsburg, suggested that I again examine the urine, and, if not of sufficient quantity (not less than one pint per day) and containing albumin, that I give him diuretics, and also try calomel again in one-eighth-grain doses.

On examination his urine was as follows: It was found that the boy was passing about one and a quarter pints of urine in twenty-four hours. The secretion was of an acid reaction, had a specific gravity of 1.016, and contained albumin. An eighth of a grain of calomel was now administered every three hours. At least two of every three doses were rejected. Seven and a half grains each of potassium citrate and potassium bitartrate, in a half-glass of cold water, were given every two hours. These also were rejected. The quantity of urine continued to grow less, and for three days the child passed on an average only six ounces per day. His heart became weaker. His stomach seemed unable to retain any fluid. To satisfy his thirst he received ice-cream. He was then given the diuretics already named in but little water. The urine now began to be excreted more freely, and, after a sound sleep, of four hours, the boy awoke and asked for a dish of sliced tomatoes. Instructions had been given to permit him to have anything he specially desired, as it was thought that he could not live without eating, for only that morning his bowel became irritable and refused to retain the enema. He next asked for fried potatoes and onions. He received that day four sliced tomatoes, each as large as a ten-year-old boy's fist, four dessert-saucers of fried potatoes and onions, and nine ounces of ice-cream. In the night the child was expected to die. His pulse was 140, and the heart became irregular, and had lost its first sound. It seemed a question of life or death, and I gave him a hypodermatic injection of $\frac{1}{100}$ grain of atropine sulphate. In half an hour his pulse became stronger, and I left three more atropine tablets, of which one was to be taken every five hours. On the following day the dietary of the previous day was repeated; in addition, the boy ate one-fourth of an apple-pie. During the night he had another weak spell, which yielded to the treatment previously employed. Since then he has been steadily improving, although he is still so weak that he cannot bear his own weight on his legs.

The boy is now taking: Reduced iron, one grain; arsenious acid, one-fiftieth of a grain; strychnine sulphate, one-sixtieth of a grain, after each meal, in addition to quinine sulphate, one grain, before each meal.

On the fifth day of the disease the patient presented an urticarial eruption closely resembling that of measles. It commenced on the feet, and spread, in two days, all over the body. It left in the same order as it came.

This case was the first of seven in one family, all of the others of which recovered in from eight days to two weeks, except one girl, four years old, who died on the sixth day, from diphtheritic poisoning, the nose being completely filled with membrane.

GASTRIC ULCER IN A CHILD TWO AND A HALF YEARS OLD.

BY JAMES F. E. COLGAN, A.M., M.D.,
CLINICAL ASSISTANT, ORTHOPEDIC DEPARTMENT, JEFFERSON MEDICAL COLLEGE HOSPITAL.

ON May 26, 1892, at 8 P.M., I was called to attend L. H., two and a half years old, who was said to be suffering with spasms. The temperature was 106°; the pulse about 150, rather full and tense; the breathing was stertorous; and all of the voluntary muscles of the body were in active contraction. There were also involuntary evacuations from the bladder and rectum.

The history I obtained from the parents was as follows: The child had been perfectly well until 11 o'clock that morning, when she came in from the street, saying she did not feel well. There was no vomiting, and no complaint of pain. The mother had examined the stools for worms, but had failed to find any. The first dentition had been passed. The child did not eat anything, and lay on a lounge until I was called. The convulsions were readily controlled, and consciousness, which had been lost from the beginning of the attack, was beginning to return when another convulsion occurred, apparently limited to the diaphragm, and terminating fatally at 12 o'clock.

At the autopsy I was greatly surprised to find a per-

forating ulcer of the stomach. The high temperature had led me to suspect either beginning scarlatina or meningitis. Against meningitis was the entire absence of pain of any kind; there was no headache, no fretfulness—in fact, no symptom indicative of intra-cranial disease. Against scarlatina was the absence of eruption and sore-throat.

Convulsions in childhood are due to many causes, but in this case I could find nothing to account for them until the autopsy disclosed the existence of a gastric ulcer.

In looking over the literature of the subject I find that several of the text-books on diseases of children do not even refer to gastric ulcer—an indication of its great rarity in young children. In Keating's *Cyclopedia of the Diseases of Children* fourteen cases are mentioned, of which only five were in children under three years of age. The great majority occurred in strumous or anemic subjects.

In the case here reported the child was well nourished—in fact, the parents stated that for the last year everything it ate appeared to be converted into flesh.

Different observers have located ulcers in different parts of the stomach. In this case the ulcer was on the posterior wall, at the cardiac extremity, close to the greater curvature. In some places there was an entire loss of substance, the floor of the ulcer being made up only of peritoneum. There was thickening of other parts of the stomach, especially on the anterior wall, extending to the lesser curvature.

Various causes have been assigned for ulcer of the stomach, such as malnutrition due to altered states of the blood; anemia; chronic congestion, as in chronic gastritis. Ulceration may also follow diseases of the left side of the heart in the course of which the branches of the gastric artery become plugged with emboli.

The cause of the ulcer in the case here reported was likely chronic gastric catarrh. The stomach was thickened in several places; the mucous membrane appeared also to be swollen. The child had, no doubt, been allowed to eat everything that it wished. A gastric catarrh developed, which, becoming chronic, was eventually followed by ulceration and perforation, with resulting peritonitis, to which must be ascribed the convulsions and death.

What surprised me greatly was the entire absence of suggestive symptoms; vomiting might have been present and not have been noticed; but the entire absence of pain, the age of the child, and its condition, were not calculated to suggest the existence of ulceration of the stomach.

A CASE OF MALFORMATION OF THE HEART.

By J. W. WILLIAMS, M.D.,
of Paterson, N. J.

On July 18, 1892, H. S., a boy ten months old, was brought for treatment to the Out-patient Department of the Paterson General Hospital, where he was seen by Dr. J. R. Merrill and myself. The child's mother, a healthy woman, stated that when the child was born its respiration was so long delayed that its life was despaired of. She also stated that ever since its birth the child had had attacks of dyspnea and partial syncope, attended with marked cyanosis, coming on so suddenly and being of such short duration that she had never summoned a physician. These attacks had been often repeated at varying intervals.

On examination, the child was found to be fairly well nourished, rather fretful and apprehensive. There was marked cyanosis of the nose and adjacent parts of the face and of all four extremities. Elsewhere the skin was pale and dull in hue. Examination of the chest showed the breathing to be somewhat accelerated. The cardiac impulse was rather forcible and diffuse, so that the apex-beat could not be accurately located. The action of the heart was rapid but regular. No distinct murmur could be heard, the only peculiarity noted in the heart-sounds being a sharp "click" heard before the systole. The diagnosis of a patent foramen ovale was made and an appropriate prognosis given.

The child died August 28th. An autopsy was made, and the following abnormal conditions were found: The heart was in the right side of the chest, with the apex in the right mammary line on a level with the sixth rib. There were two auricles, but only one ventricle. There was no pulmonary artery. The other large vessels were quite normal. The foramen ovale was patent. The wall of the single ventricle was about one-eighth of an inch thick and almost uniform throughout. A slight trace of the septum between the ventricles could be seen.

MEDICAL PROGRESS.

Cholera in the Dog.—At a meeting of the Société de Biologie, Gamaleia (*Münchener medicin. Wochenschr.*, No. 33, p. 595) reported that by treating dogs, which are among the most susceptible of animals to cholera, with intravenous injections of cultures of cholera-bacilli rendered virulent by growth on calf's-foot bouillon or by passing through the pleura or peritoneum of rabbits and guinea-pigs, he had succeeded in reproducing in them manifestations analogous to those observed in persons having Asiatic cholera: bloody or rice-water stools, obstinate vomiting and death in convulsions. Post-mortem, the mucous membrane as well as the contents of the digestive canal appeared sanguinolent; the epithelium was degenerated. Immunity was early manifest in those animals that received doses just short of lethal.

Abdominal Pregnancy.—Sutugin (*Zeitschr. f. Geburts. u. Gynäkol.*, xxiv, 1, p. 9) reports two cases of abdominal pregnancy and presents the following summary. Although retro-uterine abdominal pregnancy is usually early interrupted, with the formation of an hematocele, it may, though rarely, progress to a normal termination, with the complete development of the product of conception. It at first pursues the same course as an intra-uterine gestation; the symptoms of compression of the abdominal contents appear earlier than in other varieties of ectopic pregnancy. If the placenta be situated upon the retro-uterine fold of the peritoneum, there occur severe sacral and pelvic pains and derangement of the secretion of urine. Diagnostically, in addition to the usual uncertain signs of pregnancy, an elastic retro-uterine tumor may be detected, while the uterus is enlarged and displaced forward. In the second half of pregnancy, an irregularly round, cystic tumor may be

palpable, together with the fetal parts. The displaced uterus occupies a position above and in front of the tumor. If the fetus be living, the cardiac sounds may be distinctly heard. It has not been possible to detect the placental souffle. As a rule, contractions of the uterus are not detectable, but their occurrence, in the presence of other signs of ectopic pregnancy, does not exclude the latter. A valuable sign of abdominal pregnancy is the narrowing of the vaginal canal by a firmly elastic, more or less compressible tumor, yielding the sensation conveyed by placental tissue, although pulsation may be entirely wanting in the vaginal vaults. The vagina appears to be elongated and the vaginal portion high and beyond reach. The enlargement of the uterus, as determined by the sound, does not preclude the existence of abdominal pregnancy. The treatment will be governed by the period of the pregnancy and the condition of the fetus. In case of rupture of the gestation sac, with hemorrhage, timely, not late opening of the posterior cul-de-sac; in case of a living fetus or after its death, laparotomy, with complete enucleation of the gestation cyst in case the fetus have long been dead, is indicated. The method of operation will depend upon the anatomic relations.

A Micrococcus in the Blood of Cases of Typhus Fever.—LEWASCHEW (*Deutsche medicin. Wochenschr.*, 1892, No. 34, p. 766) records the results of observations upon a large number of cases of typhus fever in which careful examinations of the blood (removed from the spleen and from the finger) were made. In all, with the aid of high powers of the microscope, a coccus, from 0.2 to 0.5 μ in diameter, was found, which developed in pure culture in 1 or 1½ per cent. of serum-agar prepared with ascites fluid. The organisms usually appeared singly, but sometimes in pairs and but rarely in chains. They are provided with ciliary processes and are capable of active movement. Although the organisms failed to grow at the ordinary temperature of the room, they retained their vitality for a long time, together with the capability of development at a subsequent time. They grew best at the temperature of the human body. The cilia could be demonstrated by treating cover-glass preparations with 2 or 3 per cent. solutions of osmic acid.

THERAPEUTIC NOTES.

The Treatment of Hepatic Colic.—COLADON (*Wiener medicin. Presse*, No. 33, p. 1330) describes among the prodromes of an attack of hepatic colic a peculiar drowsiness; general lassitude, notwithstanding sound sleep; irregularity of pulse, especially at the temples; a false sense of hunger; a sense of emptiness in the epigastrium or distinct nausea; a sense of contraction of the esophagus; eructations and polyuria. Then follow a sense of pressure in the hypochondrium, abdominal distention and tenderness in the region of the gall-bladder. During this stage treatment should be expectant; purgatives and emetics do harm. Absolute mental and physical rest are to be recommended, together with a restricted diet. When the attack has set in, subcutaneous injections of morphine, particularly at first, are to be avoided, on account of the danger of causing impaction of the calculus. Inhalation of chloroform, short of complete anesthesia, will serve to mitigate the intensity of the pain without diminishing the contractility of the biliary passages. The application of a hot-water bag to the epigastrium and another to the back, is also a useful measure. As the attack is coming to an end, purgatives are to be given, for the purpose of carrying the calculi out of the intestinal canal. Cholagogues find an indication here, of which ox-gall and podophyllin are to be preferred. Podophyllin is to be given in small doses for several days. To prevent the recurrence of an attack, the best measure is a careful regulation of the diet. Cold douches upon the right hypochondrium are useful. Massage of the hypochondrium is an important mechanical prophylactic measure, and may be practised by the patient daily, morning and evening, for fifteen minutes.

The Treatment of Chloro-anemia by Means of Hot-air Baths.—TRAUGOTT (*Wiener medicin. Presse*, No. 33, p. 1332) reports the successful treatment of fifteen cases of chloro-anemia by means of hot-air baths. In all, a rapid and considerable increase in the percentage of hemoglobin, as well as in the specific gravity of the blood and in the number of red corpuscles, was observed; the irritability of the heart, the anemic murmurs, the febrile attacks, and the neuralgic pains grew less; the appetite returned; the bodily weight increased; menstruation was resumed; and all of the symptoms gradually subsided. In spite of the profuse perspiration, and although the quantity of fluids taken was not increased, diuresis was augmented. In one of the cases the good effect of the treatment appeared to be enhanced by an extraction of blood. In individual cases from nineteen to forty-two baths were required. The length of the stay in the hospital varied from thirty-three to eighty-four days. The baths were given by surrounding the bed of the patient with barrel-hoops, over which was suspended oil-cloth, while the patient was well wrapped except about the head. At the foot of the bed was placed a wooden box lined with zinc, in which several spirit-lamps were made to burn. The temperature of the first bath may be as high as 131°, of the subsequent baths from 140° to 152°. In the course of the bath an ice-bag is kept applied to the head.

For Catarrhal Jaundice.—NIECCI recommends the following prescription in the treatment of catarrhal jaundice:

℞.—Argenti nitratis . . . . . gr. j.
Aquæ destillat. . . . . f℥vj.—M.
S. Take a tablespoonful three or four times a day.
Deutsche med. Woch.

For Chronic Bronchitis.—
℞.—Picis liquid. pur. . . . gr. xx.
Pulv. ipecac. et opii . . . gr. xxx.
Pulv. benzoin. q. s. ut ft. pil. no. xxv.
S. Take one four times daily.
FERRAND, in *L'Union Méd.*

For Subacute Rheumatism —
℞.—Potassii iodidi . . . . . ℥iv.
Potassii bitartrat. . . . . ℥j.
Liq. potassii citratis . . . ℥vj.—M.
S. Shake well, and take two teaspoonfuls three times a day in considerable water, or in lemonade.

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SATURDAY, OCTOBER 8, 1892.

AGAIN, THE FOURTH YEAR.

The Boston *Medical and Surgical Journal* (September 1, 1892) editorially contends that The Medical News misrepresents the status of chemical teaching at Harvard and other first-class medical colleges, and that the experience of Harvard, after twenty-one years of the three-years graded course and terms of more than eight months each, has demonstrated the necessity of a fourth term, "not as a preparatory year, but as a final year;" this, notwithstanding that "many of its students . . . possess a considerable knowledge of chemistry and physics at the date of admission, . . . and all, with or without degrees, who do not possess a considerable knowledge of chemistry on admission have been given an elaborate course in this subject early in their medical study." "Reform is needed," adds our cotemporary, "not only at the foundation, but throughout the structure up to the very roof, even to its ridge-pole." To which we say, Amen; but *begin* at the foundation, or the base will not bear the heavier superstructure that it is desired to erect.

For those who voluntarily spend four years, or many more, in study and preparation for the practice of medicine The Medical News has only admiration and praise; and it is well that there should be schools like Harvard to insist not only upon the nine months term and adequate scientific preparation, but also upon the clinical finishing year. Nevertheless, The News believes that in fixing a *minimum* course of study (and no one pretends to fix a maximum) it would be well for all schools to try the long term, recitations, and adequate preliminary qualification, before deciding that the fourth year is an inevitable necessity. The three-years course cannot be said to have had a fair trial, if all these things have not been done; while even in Harvard, cheerfully granting all that our esteemed cotemporary has to say in behalf of that justly-famed school, the admission of certain highly qualified men to the studies of the second year seems to us a virtual assumption of the same position as that of The News, and what seems to The News the position of Provost Pepper. We would have all medical students thus qualified in science, though not necessarily so in arts—that is the whole difference between our position and that of our cotemporary.

It may be—and we should be glad to believe—that we were too critical in our estimate of the ability of the average American medical student to comprehend biologic chemistry, which alone it should be necessary to teach in medical schools. Our cotemporary admits that even at Harvard "an elaborate chemical course"—which certainly takes time—is necessary "early in the medical study" of a large proportion of students. Certainly if we had said that "in few medical colleges in the United States, even among those of the first rank, and despite the learning, zeal, and ability of the teachers, is it possible for the student to begin to learn from the outset of his medical studies the advanced chemistry that ought to be taught him, and without which he cannot understand either physiology, pathology or therapeutics," the expression would have been mild in comparison with facts known to us. It would be invidious to single out special schools to which our remarks did not apply. The catalogue of Harvard, to which our cotemporary alludes, shows the excellent beginning and satisfactory progress there made, and the official reports of every other school will, or should, show its standing in the matter. It is, therefore, impossible for us, even did we so wish, to do injustice to any school. The subject of the fourth term is an important one; for schools not adopting it are liable to be subjected to undeserved reproach by those not familiar with all the facts. We trust, however, to be excused from further discussion of the subject at this time.

A METHOD OF INSTRUCTING THE PEOPLE AS TO PATENT MEDICINES, ETC.

FOR a long time we have been interested in the persistent and manly fight of DR. W. B. CLARKE, of Indianapolis, Ind., against the patent-medicine men and in his efforts to give the people sound instruction in medical and hygienic matters. He uses the secular press, and how he has been able to get his articles into the newspapers is difficult to see, because, as is well known, the syndicates of patent-medicine manufacturers (estimated to draw from the American people about $25,000,000 yearly) are quick to punish newspaper or druggist that is not their obedient tool.

After DR. CLARKE, *The Independent*, of Indianapolis, deserves great credit for its bravery. When necessary to avoid the charge of cowardly anonymity DR. CLARKE signs his articles; but often does not do so, and in any case there seems to be no reason for suspicion of self-advertising. For a year or more, every week has seen the fight kept up, and, one after another, the frauds are exposed; the analyses of the common secret remedies are published, and in plain and simple language, adapted to the commonest comprehension; the people are thus instructed as to the dangers, trickeries, wastefulness, and uselessness of these vile concoctions. S. S. S., Warner, Ayer, Recamier, R. R. R., Mrs. Winslow, Hubbard, Pinkham, Gold Cures, and all the rest, are exposed and shown up with merciless courage and tireless zeal.

A noteworthy fact is that DR. CLARKE is a sincere homeopathist and secretary of the Indiana Institute of Homeopathy. The crusade, however, is not made an offensive means of homeopathic propagandism, and, in view of the better work done, an occasional sacrifice to the inherited and official superstition may readily be excused. If homeopathy would but take up such work, or indeed any work but the worship of the fetich and the most bigoted hatred of "bigoted allopathy," it would stand a much better chance of "downing" the enemy. The instance alluded to is almost the only one we have ever known in which every public and scientific duty was not forgotten in laudation and glittering generalities of praise of *Hahnemann* or homeopathic puerilities. DR. CLARKE, moreover, seems capable of teaching his brother faddists that passion, personal abuse, and financial fines are not the right or manly ways of answering an opponent's arguments. It is the blind zealot's method of hiding from himself the falsity and narrowness of his own belief. We sincerely wish that they were teachable and that he would undertake the task of instruction.

We set out, however, to urge upon philanthropic physicians the recognition of a public duty and an excellent means of carrying it out. Nearly every physician has some friend connected with the secular press, who may be influenced to admit articles to his journal tending to instruct the common newspaper reader in medical and hygienic affairs, and especially endeavoring to make headway against the ignoble traffic in human health and lives that is kept up by the patent-medicine disgrace. A law should be passed forcing all manufacturers to publish the formula and method of preparation of every medicine offered for sale—that is, copyright should be done away with, and the medicine, not the name, be patented.

In our opinion, not even a patent should be allowed on the manufacture, since all scientific discovery in medicine is made by men for public use and without reward. It goes without saying that no ignorant maker of a secret preparation has discovered or sought to discover any drug or combination of drugs of any use to humanity. Why should the law protect these reckless parasites? For the sake of argument, however, allowing the righteousness of patenting the medicine and assuring the discoverer the sole right to manufacture his discovery, there is nothing but the basest injustice, wrong, and harlequin nonsense in allowing a tradesman to patent the name and keep from the public the constituents of a preparation advertised as of inestimable service to human life and health.

Not only should we try to instruct and liberalize the editors, but we should furnish them with scientific and trustworthy articles on the common medical evils of the day, after the manner of DR. CLARKE. The danger of the "newspaper doctor" seizing upon this plan and making it subserve his advertising purposes is, to be sure, a possible and even probable danger; but this scheming scapegrace is always at such work, and no power of law or principle of honor can effect any change in his vicious deviltry. His professional superiors, and even the public, are "up to" his dodges, and have learned to distinguish between motives of self-seeking and those that have the public welfare in view.

TAKE MORE TIME.

Before medical science had become so broad that division and subdivision were necessary, cursory examination of a patient yielded all the information required by the physician to form a conclusion as to the nature of the ailment; but diseases of individual organs and their relations to and effects upon other organs and the whole body have been so widely and closely investigated that the examination that a few years ago would have satisfied is to-day inadequate.

Positivism in diagnosis is becoming rarer as conditions are more closely studied. The advance of medicine as a science has been not inconsiderably retarded by the failure of physicians to give close, careful, untiring study, regardless of time, to the morbid conditions of their patients.

When fewer physicians existed in ratio to the population, their services were required by more numerous sick, and casual observation and examination sufficed. That many serious and some fatal oversights resulted from such methods will not be denied by many scientific men. Have these methods been abandoned by the profession as a whole? Unfortunately, no.

We are all sorely tempted each day to commit sins of omission in examination, because of want of time. Other patients are waiting and are growing restless. Our presence is demanded at this or that hour, here or there, in the country or city. Distractions press from without and harass from within. This patient's blood *ought* to be examined, but we presume that it is not far from normal anyway, so we let it go. We have carefully gone over many points of history and examination, yet here is a symptom that is not fully explained. We have not time to examine the rectum to-day; perhaps at another time we will.

There are several prominent reasons for careless work. Among these a large number of patients and low fees are first to be considered, while afterward come the many engagements and calls upon time outside of professional work. The family physician has to deal with more acute minor ailments than difficult chronic diseases, and he learns to dispatch his visit quickly, knowing that with some simple symptomatic treatment Nature will restore the patient to health. But scientific medicine demands a disregard of time while we are examining patients.

Especially must the first examination of a patient be thorough and complete. Nothing ought to be inferred. Conclusions should be reached only after our fullest resources have been exhausted. When a man studies the whole by careful investigation of all its parts he gains an understanding that cannot come in any other way.

The complaint has often been made of late that too many physicians are being graduated—and that is true—while the mass of practising physicians daily slight their work, make twenty or more calls in a morning, and allow year to fold upon year without contributing one item of interest or value to the science of medicine. When, however, all physicians set out to do scientific work in connection with every patient falling under their care, the number of physicians will be found not in such great excess; they will all have a moderate number of patients, with plenty of work; and individual charges will necessarily be higher.

In investigating a case nothing must be taken for granted that is not demonstrable by the most advanced methods of diagnosis. Many men have, or could soon acquire, the skill to make more careful examinations; but they do not and will not give the time, and time is absolutely necessary. We cannot dispense with that, argue as we may.

REVIEW.

Human Monstrosities. By Barton Cooke Hirst M. D., and George A. Piersol, M. D. Part III. Philadelphia: Lea Brothers & Co., 1892.

Part III of this exquisite piece of scientific and artistic book-making comprises nine of the beautiful plates, with the artistic merits of which the reader has already become familiar, and thirty-four illustrations incorporated in thirty-seven pages of text. The continuation of the subject of single monsters begins with the cyclocephalus or cyclops, the five varieties of which, ethmocephalus, cebocephalus, rhinocephalus, cyclocephalus proper, and stomocephalus, as given by G. Saint-Hilaire, represent different degrees of the deformity or of the attendant abnormality of the face. In the interests of an exaggerated systematization, Saint-Hilaire undoubtedly increased unnecessarily the nomenclature, and our authors properly adopt the simpler and more rational system of Ahlfeld, in which eight degrees of a common defect are described as merging into each other by imperceptible gradations and intermediate stages, so that any sharply-cut boundaries or typical characteristics are impossible, and any rigid nomenclature based upon such supposed classes is recognized as unscientific. There is an excellent and clear *résumé* of the special causes and results of the varying degrees of the ocular fusion in cyclopean abnormalism, which will be of especial interest to ophthalmologists, and which we regret a want of space

required to epitomize. The etiology given is that of Dareste (*Ann. d' Oculistique*, 1891, pp. 171–182).

Of octocephalus, jawless monsters with fused ears, and synopsia, caused by arrested development of the lower processes of the first branchial arches, Hilaire's divisions are five — sphenocephalus, otocephalus, edocephalus, opocephalus, and tiiocephalus. With this class ends the consideration of autosites, that is, embryos capable of an independent existence in the womb.

The next order, omphalosites, are those embryos or fetuses dependent upon another embryo or fetus for their blood-supply. German writers especially have given this group the name of Acardiacus, because of the usual lack of heart; but as Ahlfeld collected the records of fourteen cases in which the heart was present in some degree, the term Omphalosite seems preferable. Hilaire's divisions are paracephalus, with three sub-groups, paracephalus proper, omacephalus, and hemiacephalus, representing different degrees of cephalic defect, with the four extremities developed more or less imperfectly; acephalus, absence of head and usually of the upper extremities, has three subordinate classes, the acephalus proper, the peracephalus, and the mylacephalus; the anideus, in which the parasite is a shapeless mass of flesh covered by skin; and another class not recognized by Hilaire, of the trunkless omphalosites or the asomata, so rarely occurring that but one specimen is mentioned in the *Index Medicus* in thirteen years.

Composite, compound or double, monsters are those last described. Förster's classification is adopted, including diprosopus or double-faced monsters (iniodymus, opodymus, or heteroprosopus), with six sub-groupings—diophthalmus, two-eyed; distomus, two-mouthed; triophthalmus, three-eyed; tetrophthalmus, four-eyed; triotus, three-eared; and tetrotus, four-eared—in which there are varying degrees of fusion of the two heads, eyes, and ears.

SOCIETY PROCEEDINGS.

AMERICAN GYNECOLOGICAL SOCIETY.

Seventeenth Annual Meeting, held in Brooklyn, September 20th, 21st and 22d.

FIRST DAY.

DR. CHARLES JEWETT, of Brooklyn, delivered the Address of Welcome.

The first paper presented was one by DR. CHAUNCEY D. PALMER, of Cincinnati, entitled "Periodic Intermenstrual Pain." He stated that within the last twelve years he had seen, and had under his care for months at a time, five or six pronounced cases of periodic intermenstrual pain. A certain time following menstruation, generally about the middle of the intermenstrual period, there had been attacks of pelvic pain, located in either ovarian region, sometimes on one, sometimes on the opposite side. These pains varied in severity and duration, were usually short, usually intermittent, came on at night as well as during the day, continued from two to nine days, were uninfluenced by bodily movement, were unattended by febrile phenomena.

The conclusions arrived at were: That periodic inter-menstrual pain is a comparatively rare disease; that the disease is ovarian, not uterine; that it is an oöphoritis or peri-oöphoritis, or both; that the chief underlying exciting cause of the attacks of pain is the morbid obstruction to the extrusion of the contents of the Graafian follicles; that many other morbid conditions (uterine, peri-uterine or ovarian) may be associated with the oöphoritis, but their presence is not the cause of the essential symptoms; that cure is to be effected only by overcoming the disease of the ovary or by extirpating the organ.

DR. WILLIAM H. BAKER, of Boston, expressed agreement with Dr. Palmer that the cause of the pains was generally of ovarian origin. He had found besides, that in a few of these cases, upon the removal of the uterine appendages, the thickened and cord-like condition of the tube, which could be detected before the operation, was verified upon removal. In some of the cases benefit was obtained by local extraction of blood from the uterus by means of leeches. In a number of cases it was necessary to remove the ovaries.

DR. JOSEPH TABER JOHNSON, of Washington, expressed his certainty that in some cases of the disease the ovaries should be removed. All other means should, however, first be tried, and have failed, before the removal of the appendages is attempted. Among the agents that should first be tried he recommended electricity. In only one instance had he resorted to total extirpation for the condition, and the relief was instantaneous.

DR. HENRY C. COE, of New York, emphasized the necessity of localizing the pain, and determining whether it be ovarian, tubal, uterine, or simply due to general depression of the nervous system. He expressed the belief that in the class of cases referred to in the paper the pain was a complex one, and that it was not due purely to intra-ovarian trouble, because in many of the cases the tubes were to be found enlarged, thickened, and possibly adherent, accompanied by evidences of peri-oöphoritis, and the pain due to peri-oöphoritis or localized peritonitis is of a different character. This pain, which occurs at the inter-menstrual period, has not the same neuralgic element as is found in the pain that is most likely to be called forth by the menstrual congestion.

Dr. Coe referred to one instance in which the patient suffered much pain. When the ovary was removed it was found to contain a nodule, which at first appeared to be osseous, but on examination under the microscope proved to be a calcified Graafian vesicle. Evidently in this case, and in some of the cases under discussion, the pain was due to pressure.

DR. S. C. GORDON, of Portland, Maine, related a case of inter-menstrual pain, in which other means, tried during a course of three years by various physicians, had failed. He removed the ovary, and found it hard and cord-like, and the patient was relieved of her symptoms.

DR. MATTHEW D. MANN, of Buffalo, referred to two cases recently under his care, which were greatly relieved by galvanism.

DR. H. P. C. WILSON, of Baltimore, expressed the view that in some instances the pain is due to the remaining congestion in the ovaries after the uterus had ceased to pour out the menstrual blood, and he suggested

that relief could, perhaps, be obtained by depleting the uterus.

DR. A. PALMER DUDLEY, of New York, related that he had found rectal touch the best means of making a diagnosis, the bowels having been previously thoroughly cleansed. By care in passing the finger high enough into the rectum to touch the ovary, the examiner will be able to determine whether or not the organ is tender to touch, without the necessity of an anesthetic. Dr. Dudley stated that in some cases in which he formerly removed the ovaries he now excised the cyst, and sutured the cut parts. Nine cases had been thus operated on for the relief of intermenstrual pain. Of these cases some had afterward become pregnant.

DR. W. H. WATHEN, of Louisville, read a paper entitled "Complications During and After the Operation in a Few Recent Cases of Abdominal and Pelvic Surgery." In one case in which the diagnosis was difficult, and pelvic abscess was suspected, the omentum was found thick, with signs of extensive chronic peritonitis, firm adhesions, and a cyst in the broad ligament, which had not only unfolded the layers of the broad ligament, but had stripped the peritoneum from the posterior pelvic wall to a point above the sigmoid flexure of the colon, separating the layers of the meso-colon, so that the mesenteric surface of the bowel was attached to the thin cyst-wall. The bowel could be traced on the anterior surface of the tumor, over the right side. The uterus was enlarged to three times its normal size, with its peritoneal covering partly separated, exposing the muscular coat. The patient made an uninterrupted recovery.

In a second case, that of a woman who had had pain and pressure in the region of the uterus for six months, exudates were felt, larger than oranges, on both sides of the organ. Exploratory laparotomy was performed, when a band of omentum nearly as wide and thick as the hand was found attached to the right broad ligament in the region to which the severe pain had been referred. The band was ligated in two places and divided. The enlarged uterus and the exudates in the broad ligament were united in one solid malignant mass. The uterine mass had insinuated itself under the sigmoid flexure. The patient has since had no pain or fever, but the ultimate result is necessarily fatal.

A third case presented extensive adhesions from peritonitis, probably caused by a fall some time previously.

A fourth case proved to be one of extra-peritoneal abscess in the right inguinal region, of appendiceal origin, although the appendix could not be found. The patient recovered.

In a fifth case, in which the uterus was extirpated for malignant disease, the nurse, for some unknown reason, during convalesence, gave a vaginal injection of mercuric chloride, 1 : 2000, which penetrated the peritoneal cavity, notwithstanding which, however, the patient recovered.

DR. WILLIAM T. LUSK, of New York, presented a specimen of a lithopedion, and also one of a fibroid tumor that very much resembled the lithopedion. The patient from whom the fibroid was removed was considered as an example of extra-uterine pregnancy. On examination intra-uterine pregnancy was found, together with a movable body in the abdomen which felt like a fetus. An exploratory incision confirmed the diagnosis. The growth, which proved to be a fibroma, was attached to the pregnant uterus by a long pedicle. The pedicle was excised, the margins of the incision sutured, and the peritoneum drawn over. The patient made an uninterrupted and rapid recovery, and subsequently gave birth to a child.

The second specimen was obtained from a patient who three years previously had had an attack of peritonitis, following which there had been more or less tympanitic distention of the abdomen, colicky pains, and pain on the right side. A cyst was found adherent to the right side of and extending behind the uterus, and evidently embracing the intestine. On opening the abdomen a lithopedion was found, perfectly free, but attached to the peritoneum; its sac was calcareous and friable, and contained a considerable amount of fluid; a large part of the membranes was also calcareous. Considerable time was required in the removal of the formation, but the patient made an excellent recovery. After the operation it was learned that twelve years previously the patient had presented all the signs of pregnancy, in which she had gone on two months and then had a flow; from that time she had suffered from sick stomach and violent pains, sometimes with an intermission of two or three days, and then a recurrence. At the seventh month she had violent hemorrhage and then labor-pains, and believing herself in labor sent for a physician who examined her, said she was in labor and watched her twenty-four hours, but the baby did not arrive. Then the pain subsided, and the physician thought she would go on until the next month, and then have her baby, but the child never came.

DR. MATTHEW D. MANN, of Buffalo, related two cases of lithopedia. In one case all the symptoms of extra-uterine pregnancy had been present eight years previously. The case was diagnosticated as one of extra-uterine pregnancy and operation was advised. The patient refused, went on till full term and presented all the evidences of labor; but the symptoms subsided and the woman made a good recovery. She lost her husband, but married again a year afterward, and had three children, all the time carrying this large mass in her abdomen. The woman presented herself recently, passing feces by the bladder. On operating, a large sac was found, to which the intestines were firmly adherent and which contained the fetus. There were two openings in the intestine, one in the large and one in the small intestine, and also one in the bladder. These were all closed. The patient recovered without a bad symptom, although there was stone in the bladder—probably from some remains in that organ. The fetus had been in its sac for thirteen years. The peculiar and interesting feature in this case was that the uterus was a uterus bicornis, or double uterus, and that the pregnancy was not extra-uterine; the child occupied one horn of the uterus, which had no means of getting rid of its contents.

The second case was diagnosticated as one of extra-uterine pregnancy. Labor pains set in, but subsided. The sac was opened, a perfectly formed fetus removed, as fresh as if it had not been dead over twenty-four hours, although the woman had been carrying it for a number of years.

DR. HENRY C. COE, of New York, read a paper entitled "The Elective Cesarean Section—The Most Favorable Time for Operation." He related that of 67 cases operated on by the method of Sänger during the last decade, with a maternal mortality of 40 per cent., 18 have been contributed by nine Fellows of this Society, with a mortality of 33⅓ per cent., 4 of the 6 fatal cases being particularly unfavorable, while in 1 death was due to puerperal mania, and could not be referred to the operation. Ten operations have been reported since 1889, and all have been practically elective, *i. e.*, performed as a substitute for embryotomy, and all were successful.

From an experience of two cases, Dr. Coe entirely agreed with the position taken by Harris, that, other things being equal, the chances of success are increased rather than diminished by operating *before* the commencement of labor. The one case occurred in a primipara, twenty-two years old, four feet six inches in height, rachitic and with marked kypho-scoliosis. The conjugata vera was estimated at less than three and a half inches, with lateral obliquity of the pelvis. It being estimated that the patient was within a few days of full term, the operation was performed without waiting for the beginning of labor. The placenta was directly in the line of the uterine incision, which was made after the uterus had been lifted out of the body, and a rubber cord applied. Little blood was lost, the uterus contracting firmly as soon as it was emptied; the cervix was sufficiently dilated to insure drainage. No fluid entered the peritoneal cavity. The child was vigorous; the mother made a good recovery and is well to-day; the infant lived a year and died of some acute disorder.

The second case occurred in a multipara, thirty-seven years old, who presented a growing fibroma originating from the lower uterine segment, and compressing the right ureter and causing hydro-nephrosis. Celiotomy was performed and an unsuccessful attempt was made to remove the tumor, which was extra-peritoneal and inaccessible from above. The patient recovered from the operation and subsequently became pregnant. In the eighth month the tumor had so increased in size that there was a space of only two inches left for the passage of the fetus. The cervix was high up, on a level with the upper border of the symphysis, and could barely be reached with the finger-tip; the general condition was good; the child was well developed. Dr. Coe operated fifteen days before the estimated date of confinement, and found marked hydramnios, and the placenta situated anteriorly. The uterus contracted well, and no more blood was lost than usual. The cervix was patulous. The child was vigorous; no fluid entered the peritoneal cavity; the patient made a good recovery. Two months after the operation both mother and child were perfectly well.

Six other cases have been reported by American surgeons in which the operation was performed *before* labor, with five recoveries, the fatal case being a most unfavorable one of carcinoma of the cervix.

Dr. Coe maintained that the two essentials to success are early operation and perfect technique, which are intimately related to each other, so that in securing the one the other is secured also.

DR. ROBERT P. HARRIS, of Philadelphia, presented a paper on "The Remarkable Results of Antiseptic Symphysiotomy," in which he carefully traced the history of this operation. In the year 1778 the operation was performed in eleven cases, while from 1841 to 1858 it was performed in a like number. From July, 1858, to February, 1865, it is impossible to find the record of any case of symphysiotomy in the world.

According to a report made by Prof. Morisani in 1886, eight women and five children were lost in eighteen operations. Since that report was issued forty women have been delivered by thirteen operators, with the death of only one woman (from metro-peritonitis, probably puerperal). Six of these women endured two operations each with entire success; and 35 of the 40 children were saved. Of the other five one was stillborn, two were fatally asphyxiated (1 was a forceps delivery), a fourth lived twelve hours after delivery by version, and the fifth died on the third day of meningeal hemorrhage, having also been delivered by version.

The forceps was used to deliver in 27 cases, and version was performed in 5.

As the fetus is to be delivered *per vias naturales*, great care must be taken to get a proper measure of the sacro-pubic diameter of the pelvis and to determine if a normal condition of the sacro-iliac symphyses exists. The operation is not practicable in a Robert or Naegele pelvis, or in one with coxalgic ankylosis, or if there is carcinoma of the cervix uteri, or in cases in which the cervix will not dilate, in obstructions of the pelvis by exostoses, cervical and sacral tumors, and other forms of abnormal growths.

As compared with craniotomy, in cases in which the size of the pelvis is sufficient to admit of a safe delivery to the mother after the fetal head is perforated, symphysiotomy offers a good alternative, as is well shown by the case of Prof. Freund, of Strassburg, who performed the operation and delivered a woman who had a rachitic pelvis with a conjugate diameter of 100 millimeters (4 inches) and a true conjugate of about 3¼ inches. The fetus, arrested at the superior strait, was delivered in fifteen minutes by the vertex with manual assistance after the pubes had been opened by the knife. The child was a male, having a bi-parietal diameter of 4⅝ inches. It lived, and the mother made a good recovery in thirty days. Many cases of craniotomy have no doubt been performed in the past under such circumstances as these in order to save the mother, in which both the child and the mother could have been saved if symphysiotomy had been performed.

Dr. Harris contrasted the three incisive methods of delivery in cases of contracted pelvis. At the present time the "improved Cesarean section" would undoubtedly occupy the first position in the estimation of obstetric surgeons, and if it could be performed early enough the mortality might be reduced to a very low rate.

The Porro-Cesarean operation in general practice upon rachitic women has a larger mortality, and many object to its mutilating effects.

Symphysiotomy is specially antagonistic to craniotomy, and its low mortality renders it an inviting and simple substitute for the latter.

The method of performing the operation is as follows: The following instruments should be thoroughly steril-

ized before the operation: a scalpel, Galbiati's probe-pointed, sickle-shaped bistoury, some hemostatic forceps, a needle-holder and needles, a catheter, ligature-silk, gauze, and cotton. The woman is placed on her back at the side of the bed, with her knees drawn up and separated. The mons veneris and the labia majora are to be shaved and the supra-pubic region, the vulva, perineum, and vulvo-vaginal canal disinfected. The depth, thickness, and direction of the symphysis are to be examined, and the fissure in its superior edge which marks the point of union of the two pubic bones searched out. Then the inferior margin and the anterior and posterior faces of the bones are to be examined.

A female catheter is introduced and placed in the hand of an assistant, that he may depress the urethra from the pubic region and at the same time carry it to the right side to save it from injury. A vertical incision is to be made through the skin and fat above the pubes, about 2¾ or 3 inches in length, terminating about ¾ of an inch above the symphysis, cutting the tissues gently and passing in a line toward the left of the clitoris, so as not to injure it. The length of the incision must depend on the thickness of the fat to be cut through. The recti muscles are to be detached for a short distance from their attachment to the two ossa pubes, the left index finger is to be introduced into the opening and the retro-pubic tissue separated. The palmar surface of the finger is then to be directly applied against the posterior aspect of the symphysis, and hooked in the inferior margin of the articulation, while the assistant attends to the catheter as stated. The operator then introduces the Galbiati bistoury and hooks it around the articulation, cutting the inter-osseous ligaments and cartilage, from within outward, and from below upward. The completion of the section will be known by a creaking sensation and a separation of the bones of from 1¼ to 1½ inches.

After this step the wound is covered with gauze dipped in a bichloride solution of 1 : 4000, and the delivery of the fetus attended to, the separation of the innominate bones being at the same time antagonized by pressure with the hands of assistants. During the passage of the head the amount of pubic separation should be ascertained, the vagina sprayed, and when the placenta is delivered six or eight interrupted silk sutures should be introduced into the edges of the wound, which is dressed with sublimated cotton, 1 : 2000, and a bandage applied to the pelvis and lower extremities.

Dr. Wm. T. Lusk, of New York, stated that although he had had a horror of the operation of craniotomy on the living child, still he had felt that, in view of the greater danger of Cesarean section, it was his duty to allow the woman and her friends to elect which procedure should be resorted to.

Dr. H. J. Garrigues, of New York, stated that in 1881 he had sent for Galbiati's knife, with a view to making use of it, but he had not done so through fear that the mother would be left lame after the performance of symphysiotomy. He regards craniotomy upon the living child as justifiable under certain conditions. If symphysiotomy can be done with thorough antisepsis it may take the place of craniotomy upon the living child.

Dr. Edward Reynolds, of Boston, expressed the opinion that if symphysiotomy is so successful upon European subjects it ought to be even more so in American women, in whom the anterior-posterior diameter is usually greater, and therefore would permit of greater separation of the pubic bones.

Dr. Wm. H. Parish, of Philadelphia, presented a paper on "Celiotomy after Labor." He stated that an abscess in the pelvic connective tissue, or within the tube or ovary, or pus encysted in the peritoneal cavity, must be evacuated early, usually with the knife. While the necessity for early surgical interference is well recognized by experienced operators, not infrequently the physician fails to appreciate the emergency, and the operator is oftentimes called at a time when complications have already arisen that render an operation extremely dangerous. There is still a widespread belief among many of those not engaged in the performance of abdominal operations that when suppuration occurs after labor the pus is usually in the pelvic connective tissue, and that it is best to wait for fluctuation or bulging in the vagina before attempting to evacuate. The pelvic connective tissue is undoubtedly not the usual site of suppuration, and such a delay renders the later removal of pus through the abdominal wall fraught with increased danger. When pus exists within the pelvic cellular tissues, its evacuation is usually effected per vaginam or above Poupart's ligament, externally to the peritoneum, but in some cases a median celiotomy may be indicated as an aid in ascertaining the location of the pus, when other diagnostic measures point to the existence of suppuration, but do not indicate its location.

Emphasis was placed upon the fact, which has been indisputably established by modern surgery, of the relatively great infrequency, even after labor, of suppuration within the pelvic connective tissue. When this fact is accepted by the profession at large a closer watch will be kept for the appearance of suppuration at other points, as in the tube or ovary, and the danger of delaying the operation will not arise so frequently. Ovarian cystoma, hydro-salpinx, hemato-salpinx, and pyo-salpinx do not render pregnancy impossible. Labor sometimes establishes a localized or general peritonitis, and if the symptoms do not promptly subside there exists an absolute indication for celiotomy, removal of the offending mass, and irrigation, but in some cases the evidences of infection may be merely transitory, and operation may be safely deferred. The operation must, however, be performed after labor if infection occurs.

That total extirpation or vaginal hysterectomy is not always necessary in case of puerperal uterine abscess was demonstrated by the case of a woman in whom symptoms of mild sepsis supervened on the fourth day. The uterus was nearly median in position and not very movable. To the right and above was what appeared to be an exudate about a tubal abscess close to the uterus. On abdominal section, both appendages were found free from pus. The uterus presented a bilobed appearance, the right lobe being doughy to the touch and of a dark purplish color. Puncture of this lobe gave exit to two ounces of pus, and revealed an irregular abscess-cavity that did not communicate with the uterine cavity. Two semi-eliptical incisions were made into the uterine tissue, and a wedge-shaped portion of the uterus was removed without reaching the uterine cavity. Numerous lymphatics about the abscess contained pus.

The lips of the uterine wound were sutured with silk sutures. Two abscesses were discovered in the intestines that had been adherent; they were in the lymphatic glands in the sigmoid meso-colon. They were evacuated and sutured, and after thorough irrigation the abdomen was closed. The patient made a good recovery.

In another case, one of plastic peritonitis, in which the amount of pus encysted was so large that the medical attendant thought it was ascites, the removal of three gallons of pus, irrigation, and drainage, were followed by excellent recovery.

Diffused suppurative peritonitis rapidly terminates fatally. The pus formed is limited in quantity, is diffused over the peritoneum, though most abundant in the pelvic regions, presents the streptococcus in greatest abundance, and is most virulent in character. During the progress of plastic peritonitis celiotomy is rarely indicated unless pus is present. Plastic peritonitis may occur without the existence of abscess, when it is usually limited, and tends to recovery under proper non-operative treatment.

In the severe cases of diffused septic suppurative peritonitis, celiotomy is useless and unjustifiable unless performed early. Little is to be hoped for from celiotomy in these virulent cases, as the rapidity of the spread of the poison is so great that it renders a sufficiently early performance of the operation very infrequent.

Dr. Parrish reported that he had performed celiotomy eight times after labor, with one death. In every case there was pus in the tube, ovary, or uterine parenchyma, or encysted in the peritoneum. In the fatal case, death resulted from exhaustion and shock and the very hot weather, the temperature of the room at the time of operation being 98°.

Prior to the performance of celiotomy for any condition following labor, the genital canal should be rendered as aseptic as possible. The uterus should also be curetted with a dull curette before the operation, and repeated douches used.

(To be concluded.)

CORRESPONDENCE.

THE FERTILITY OF HYBRIDS.

To the Editor of THE MEDICAL NEWS,

SIR: In your issue of August 13th the interesting paper of Dr. W. A. Dixon contains some ethnologic generalizations which it seems to me will not bear criticism. Dr. Dixon's observations on the tendency of mulatto families in Ohio to die out after the third or fourth generation from constitutional diseases and sterility, when the blood is not freshened by white or negro intermixture, are very valuable, and I am glad that he has recorded them. There is thus added another locality to those already known in which mulattoes are unable long to propagate themselves unaided.

In his statement "that ethnologists mainly agree that human hybridity cannot be maintained without reversion or fresh supply from parent blood," Dr. Dixon is hardly supported by the ethnologists. In the first place, I would like to ask Dr. Dixon to point out an existing human race which is not hybrid. If instead of saying, "Ethnologists have sought in vain among the nations of the earth for a race manifestly hybrid," etc., he had said that ethnologists have sought in vain for a race manifestly unmixed, he would have come nearer the truth. There are, indeed, a number of races "manifestly hybrid, with well-defined characters, intermediate between two known races, perpetuating themselves without the concurrence of the parent races," as, for instance, the Moors, a cross between Arab and Berber.[1] Mixed breeds of Chinese and Mongolians, of Chinese and Annamites, and of Chinese and Malays have long flourished independently of the parent stocks, and the last, having readily acquired modern civilization, are making rapid strides in progress.[2] Surely Dr. Dixon does not deny the fertility and physical energy of the "half-breeds" (between Europeans and Redskins) of Manitoba and the western States, yet they fulfil his conditions quite exactly. At least two-thirds of modern Mexicans are descended from half-breeds sprung from unions of Spaniards and Aztecs, and they have been fertile for centuries. The fact of a reversion to one or other parent type does not bear upon the question of the fertility or physique of the hybrids.

Topinard[3] gives so many instances of successful hybridity that it is difficult to understand how so sweeping a statement to the contrary can be maintained. I do not wish to be understood as stating that *all* hybrid races are of uniform fertility—a manifestly erroneous postulate—but merely as denying that "human hybridity cannot be maintained." The cross between Anglo-Saxon and Negro cannot maintain itself in some localities, perhaps in all, but crosses between the dark European races and the Negro flourish in many places.[4] The concluding sentence (not quoted) of the paragraph from Topinard quoted by Dr. Dixon does full justice to the present state of our knowledge of the fertility of hybrids: "The fact is, the question has not yet been settled."[5]

Fertility of hybrids, so far as we now know, however, depends much more upon conditions of climate and other environment than upon the mere fact of hybridity. Topinard's own conclusions[6] are directly opposed to the statement of Dr. Dixon.

Quatrefages[7] notes the Griquas as a hybrid race which increased rapidly, though not mingling with neighboring races. So it is in Tahiti, Marquesas Islands, Manilla, Mindanao, and Brazil.[8] Nott, while showing that the mulattoes are infertile in South Carolina, at the same time admitted that in Louisiana, Florida, and Alabama they are fertile, robust, and energetic. Hombron says that mulatto men and women in the French colonies are extremely fertile. The mulatto population of the republic of St. Domingo maintains itself easily. There is no need to multiply instances to prove that Dr. Dixon's statement is too broad, though undoubtedly true of mulattoes in certain localities. As to the prevalence of struma, tuberculosis, and carcinoma among mixed races I am not at

[1] Dr. Paul Topinard, Anthropology, American edition, Philadelphia, J. B. Lippincott & Co., p. 371.

[2] Topinard, loc. cit., p. 371.

[3] Loc. cit., pp. 370–377.

[4] Topinard, loc. cit, p. 374; also A. de Quatrefages, The Human Species, New York, D. Appleton & Co., p. 263, et seq.

[5] Loc. cit., p. 375.

[6] Loc. cit., pp. 376, 377.

[7] Loc. cit., p. 262,

[8] Quatrefages, loc. cit., p 262.

present prepared to say anything, but hope to be in a future communication.

Dr. Dixon asks if the affections named "prevail among the Jews and other unmixed races," and so falls into the popular error of considering the Jews a race instead of merely a religious sect. Even if the Jews are admitted to be a race, they are certainly not unmixed. The Old Testament is one continuous record of intermarriages between the Hebrews and the surrounding tribes. Their prophets and leaders repeatedly reproved them for mixing with the Canaanites, and thereby bore undying witness that intermarrying took place. From the first to the third centuries of our era the Jews were active as proselytizers, and received into their fold thousands of persons of other races.[1] The Jews do not strenuously object to marriages with persons outside of their own sect, provided the Gentile becomes a Jew upon marriage.

Anyone who will look at the Jews as they now come from Europe will readily see that in physical characters they are the most heterogeneous people that ever claimed to be a race. The English, German, Polish, and Russian Jews each, more or less, conform in type to that of the nations among whom they have lived, and the climate or other factors of environment furnish an obviously insufficient cause to account for these resemblances, so that we must conclude that intermixture has always taken place. Marriages between Jew and Gentile occur to-day in the United States, several cases having come under my own observation, and it seems clear that they have always occurred to a greater or less degree wherever the Jew has wandered. Certainly the Jews cannot be regarded as an "unmixed race," and I am not aware of the existence to-day of any unmixed race.

Respectfully,

P. Max Foshay, M.D.

Rochester, N. Y.

HOMEOPATHIC PHYSIOLOGIC ACTION.

To the Editor of The Medical News,

Sir: Richard Hughes, the English homeopathist, in his *Manual of Pharmaco-dynamics*, which represents a course of lectures in the London School of Homeopathy, has the following in the lecture on "Bryonia": "The pathogenesis consists of 781 symptoms, two-thirds of which are contributed by the master (Hahnemann) himself, and the rest by six fellow-provers. . . . In one of the animals poisoned with bryony at Vienna, where a very minute autopsy was made by a practised pathologist, it is noted that the substance of the heart and the muscles of the neck were intensely red. Putting this together with the soreness and pain on motion experienced by the provers in so many parts of the body, even to the production of pleurodynia and lumbago, I venture to set down our drug as a specific irritant of muscular fiber. As we have no other medicine with such an action we must not lose even the hint of it supplied by these facts."

As a contrast to this, turn to the article on "Caffeine" in Wood's *Therapeutics*: "The action of caffeine upon the muscle is readily demonstrated by throwing the isolated gastrocnemius of the frog into a 1 per cent. or even weaker solution; in from two to three minutes the muscle becomes contracted, swollen, round, stiff, and unable to respond to the galvanic current. That it is the muscle-fiber that is affected is shown by the experiments of Pratt and Voit, in conjunction with one in which Pratt found that when an isolated muscle was soaked in a solution of curare until the nerves were killed and then thrown into a solution of caffeine, the usual rigidity was developed. Johannsen states that when a muscle under the microscope is touched with caffeine its fibers can be seen to contract half their length," etc.

He who runs may read.

George Woodward, M.D.

New Haven, Conn.

[1] This statement is made upon the authority of Ernest Rénan, but I cannot at present find the passage for reference.

EXTRA-UTERINE PREGNANCY FROM AN ANATOMIC STANDPOINT.

To the Editor of The Medical News,

Sir: I am engaged in the study of extra-uterine pregnancy from an anatomic standpoint, and desire to obtain as much material as possible upon which to base my work. Through your courtesy, I therefore appeal to those who come in contact with this class of cases to aid me by sending me any specimens with which they may meet.

The specimens should be handled as little as possible, and as soon as possible after the operation be placed in jars containing cotton, and covered by more than their bulk of ninety-five per cent. alcohol or Müller's fluid, and forwarded to me. They should also be accompanied by a brief outline of the history of the case and the measurements of the fresh specimen.

To any one aiding me in this way I will be glad to send a report on the specimen, and in my article will, of course, make due mention of those who have kindly assisted me in my researches.

Respectfully, J. Whitridge Williams.

Pathological Laboratory,
Johns Hopkins Hospital, Baltimore.

THE TEACHING OF ANATOMY.

To the Editor of The Medical News,

Sir: In The News of August 27th there appeared a plea for teaching anatomy from a "physiologic standpoint," the writer stating that he believed the only way to make the study of anatomy interesting and systematic was to begin not with the complex object, the human body, but with the ovum, and thus trace the development of the individual from its very incipiency. The writer also predicted that some "great genius" would some day do this thing.

That this great genius has already arisen is proved by simply referring to the methods and books used in teaching German medical students; and he who wishes to see the method in operation among us has but to go and listen to the lectures of Professor Piersol at the University of Pennsylvania.

In his course of lectures Professor Piersol first traces, by means of comparative embryology, the development of the human ovum, and then passes to general anatomy, taking up the macroscopic and microscopic considerations at the same time, thus avoiding the error, too often patent among first-year men, of failing to grasp the fact

that embryology, histology, osteology, and general anatomy are but parts of one complex whole.

This plan of study, which makes of anatomy not simply the hand-maiden of surgery, but a science, has been slow of adoption in our schools, no doubt, because of lack of time. But even now, when the institution of four years' curricula is rife, a sentiment for this scientific study of anatomy will have to be cultivated; for so long has that indomitable American desire of getting on in the immediate present held sway among us, that even science has not escaped the stamp of the utilitarian, and the calm study of Nature, to add to the sum of human knowledge, with no immediate pecuniary reward in view, has been left to men of other countries.

That this new method is not to be received unchallenged is illustrated by a certain medical man of no mean repute, who, upon quizzing his son—three weeks old in the study medicine—and not obtaining the desired answers, flew into a dudgeon, berated the new-fangled ways, longed for the good old times, and ended by recommending his son, since he knew more of ova than ossa, to give up medicine and go to poultry-farming.

Naturally, to the man who has grown to look upon anatomy as a mass of facts that teaches him where to make his incisions, this scientific method is an innovation; and to the student in his first few months, rampant, as he usually is, for gynecology and gore, fibers and cells, it may be a bore; but if, after a fair trial, it can be proved that the student thus thoroughly taught his general anatomy does not go to his lecturer on topographic anatomy a better prepared and more interested and attentive listener, and to the dissecting-room a better observer, then, and then only, let the method be called a failure.

JAMES ELY TALLEY, M.D.

PHILADELPHIA.

NEWS ITEMS.

G. Hoppe-Seyler has been made Professor Extraordinary of Internal Medicine at Kiel.

Address Wanted.—We have received a communication from R. C. ELLIOTT, M.D., unaccompanied by the address of the correspondent.

Dr. E. P. Davis has been appointed Clinical Professor of Diseases of Children in the Women's Medical College of Philadelphia.

Elective Cesarean Section.—On September 28th, at the Kensington Hospital for Women, Dr. Charles P. Noble performed Cesarean section on a primipara having a scolio-rachitic flat pelvis with a true conjugate estimated at two and three-quarter inches. The woman being at full term, the operation was done at a selected hour instead of permitting her to fall in labor.

This makes the fourth Cesarean section done in this Hospital, and the sixth done by the surgeons of the Hospital. All the previous cases have recovered.

In the recent case the mother and daughter are doing well.

On the Action of Alcohol and its Value in Disease.—The American Medical Temperance Association, through the kindness of J. H. Kellogg, M.D., of Battle Creek, Mich., offers the following prizes:

1st. One hundred dollars for the best essay *On the Physical Action of Alcohol, based on Original Research and Experiment.*

2d. One hundred dollars for the best essay *On the Non-alcoholic Treatment of Disease.*

These essays must be sent to the Secretary of the Committee, Dr. Crothers, Hartford, Conn., on or before May 1, 1893. They should be in type-writing, with the author's name in a sealed envelope, with motto to distinguish it. The report of the Committee will be announced at the annual meeting at Milwaukee, Wis., in June, 1893, and the successful essays read.

These essays will be the property of the Association, and will be published at the discretion of the Committee. All essays are to be purely scientific, and without restrictions as to length, and limited to physicians of this country.

BOOKS AND PAMPHLETS RECEIVED.

Circular No. 36, State Board of Health, Commonwealth of Pennsylvania, 1892. Sanitary Protective Associations.

Sur les Variations Pathologiques de la Résistance du Corps Humain au Courant Galvanique. Par le Docteur René Verhoogen. Reprint, 1892.

Cancer of the Mouth, Tongue, and Esophagus; Their Symptoms, Diagnosis, and Treatment. By Frederic Bowman Jessett, F.R.C.S. Eng. Illustrated. London: Baillière, Tindall & Cox, 1892.

Colotomy—Inguinal, Lumbar, and Transverse—for Cancerous Stricture with Ulceration of the Large Intestine. By Herbert W. Allingham, F.R.C.S. London: Baillière, Tindall & Cox, 1892.

The Surgical Treatment of Neuralgia of the Fifth Nerve. By William Rose, M.B., B.S. Lond., F.R.C.S. London: Baillière Tindall & Cox, 1892.

Fourth Annual Report of the Commissioner of Health of Milwaukee, April, 1892. Milwaukee: Ed. Keough, 1892.

Three Cases of Cranial Surgery. By William H. Morrison, M.D. Reprint, 1892.

Report on Abdominal and Pelvic Surgery, Including Thirty-two Successful Cases of Laparotomy. By William H. Wathen, M.D. Reprint, 1892.

President's Address before the Minnesota State Homeopathic Institute. By D. A. Strickler, M.D. Reprint, 1892.

Biographical Sketch of John C. Hupp, M.D., of Wheeling, W. Va. (Advance sheets from "Prominent Men of West Virginia," now in press.) Wheeling, 1892.

The Modern Apotheosis of Nature. By Swan M. Burnett, M.D. Reprint, 1892.

Bureau of Education, Circular of Information, No. 6, 1891. Contributions to American Educational History, edited by Herbert B. Adams. No. 13, History of Higher Education in Massachusetts. By George Gary Bush, Ph.D. Washington: Government Printing Office, 1891.

Bureau of Education, Circular of Information, No. 1, 1892. Southern Women in the Recent Educational Movement in the South. By Rev. A. D. Mayo, M.A. Washington: Government Printing Office, 1892.

Regional Anatomy in its Relation to Medicine and Surgery. By George McClellan, M.D. Vol. II. Philadelphia: J. B. Lippincott Company, 1892

The Ethics of Opium Habitués. By J. B. Mattison, M.D. Reprint, 1892.

Striking Forms of Nervous Dyspepsia of an Aggravated Type, and Cases in Practice. By F. Peyre Porcher, M.D., LL.D. Reprint, 1892.

State of Arkansas against Dr. George E. Pettey; Charge, Involuntary Manslaughter. Des Arc, Ark., 1892.